INTEGRATED AV SURROUND AMPLIFIER

KA-V8500

SERVICE MANUAL

KENWOOD

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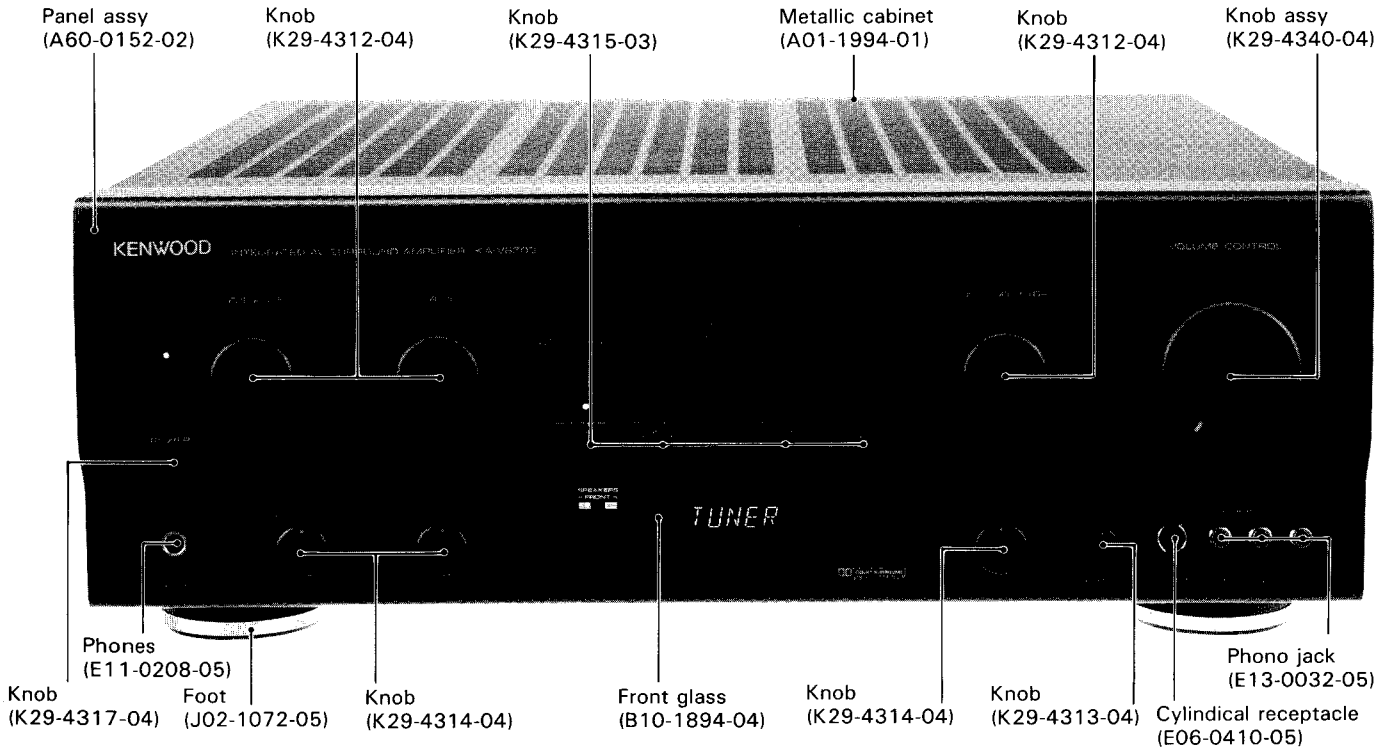

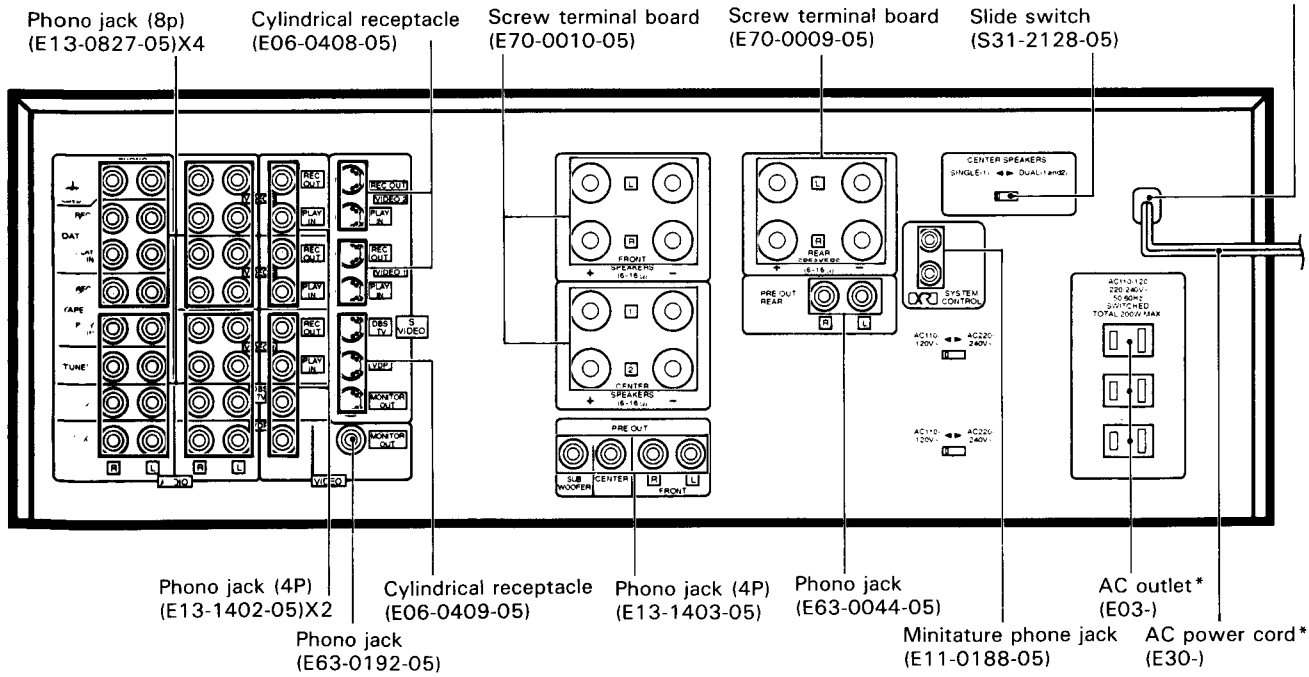

*Refer to parts list on page 57.

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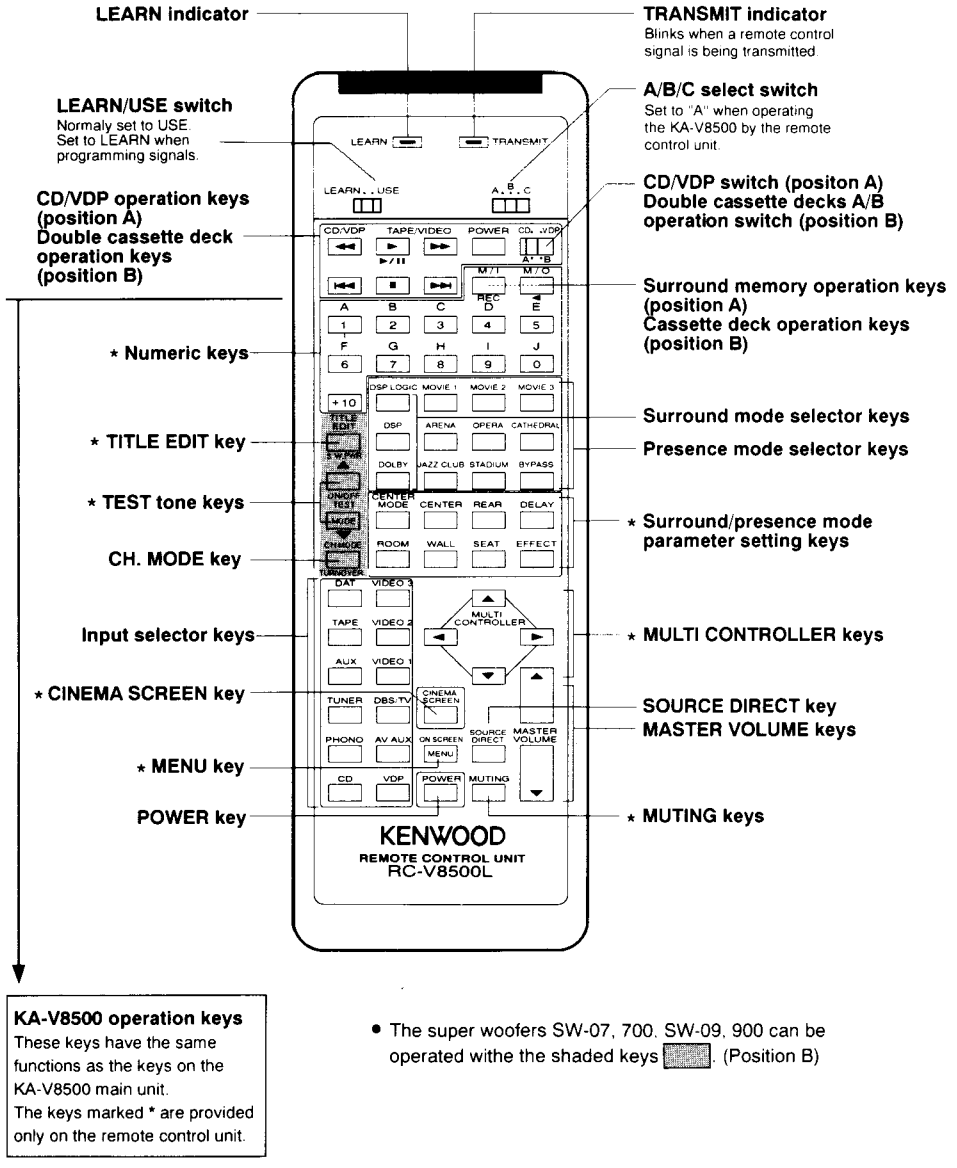
REMOTE CONTROL UNIT


LEARN indicator
TRANSMIT indicator
Blinks when a remote control signal is being transmitted.
LEARN/USE switch
Normaly set to USE.
Set to LEARN when programming signals.
A/B/C select switch
Set to "A" when operating the KA-V8500 by the remote control unit.
CD/VDP operation keys (position A)
Double cassette deck operation keys (position B)
CD/VDP switch (positon A)
Double cassette decks A/B operation switch (position B)
Surround memory operation keys (position A)
Cassette deck operation keys (position B)
* Numeric keys
Surround mode selector keys
* TITLE EDIT key
Presence mode selector keys
* TEST tone keys
* Surround/presence mode parameter setting keys
CH. MODE key
Input selector keys
* MULTI CONTROLLER keys
* CINEMA SCREEN key
SOURCE DIRECT key
MASTER VOLUME keys
* MENU key
POWER key
* MUTING keys
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REMOTE CONTROL UNIT
RC-V8500L

KA-V8500 operation keys
These keys have the same functions as the keys on the KA-V8500 main unit.
The keys marked * are provided only on the remote control unit.

- The super woofers SW-07, 700, SW-09, 900 can be operated withe the shaded keys ▒. (Position B)

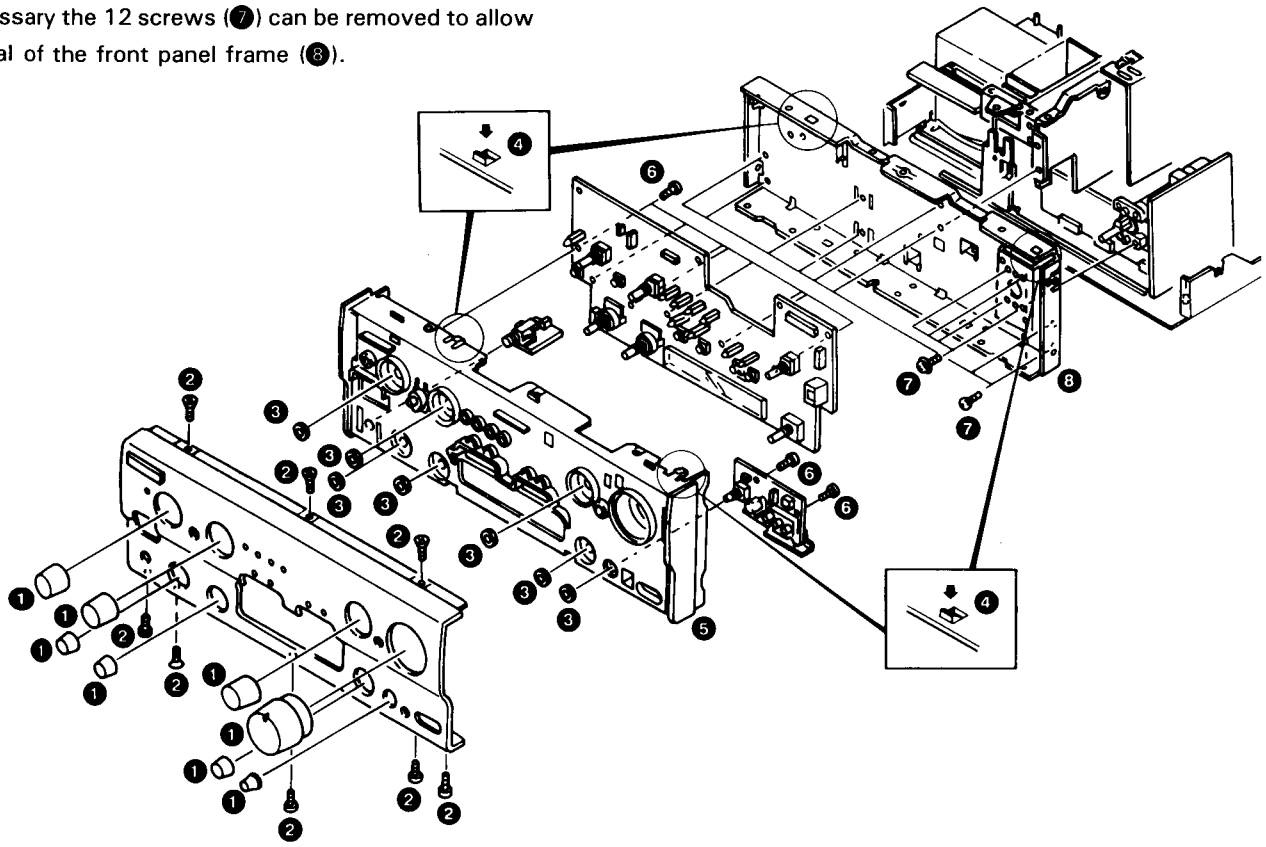
DISASSEMBLY FOR REPAIR

How to disassemble the for repairs

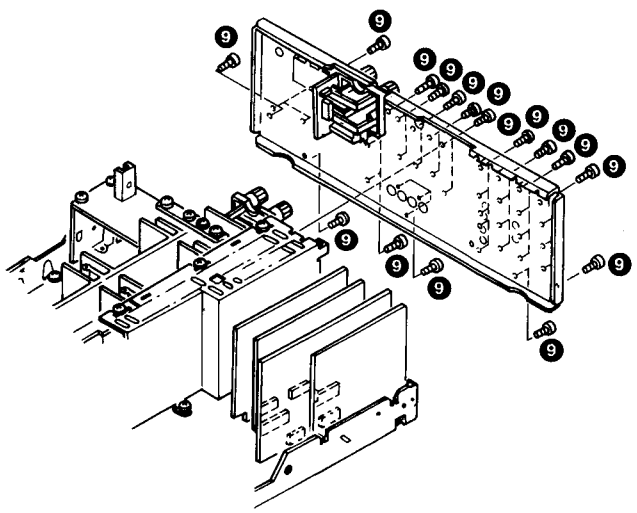
First remove the case.

How to remove the panels

1. Remove the 8 knobs (❶).
2. Remove the 8 screws (❷) and lift off the front panel.
3. Remove the 7 nuts (❸), push down the two tabs on top (❹) and remove the sub panel assembly (❺).
4. Remove the 10 screws (❻) and lift off the control unit.
5. If necessary the 12 screws (❼) can be removed to allow removal of the front panel frame (❽).



6. Remove the 37 screws (❾) and lift off the rear panel.



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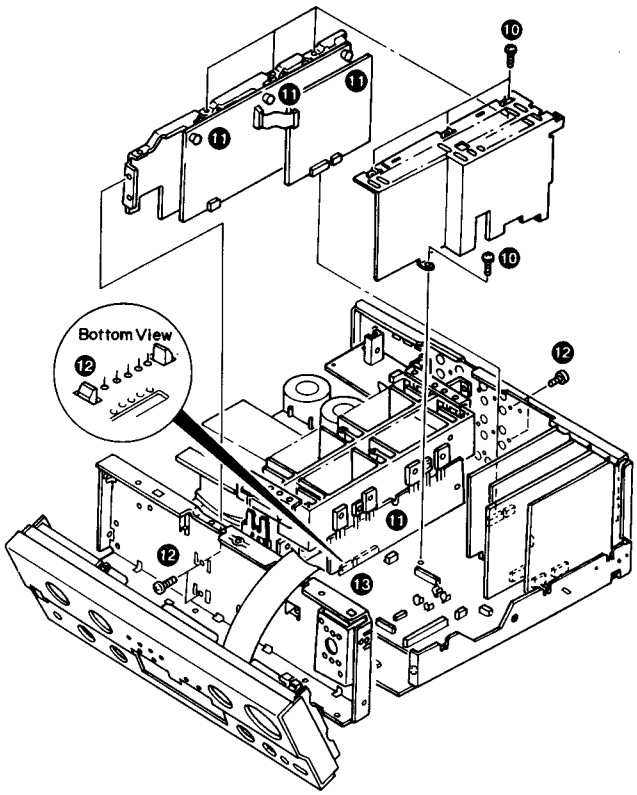
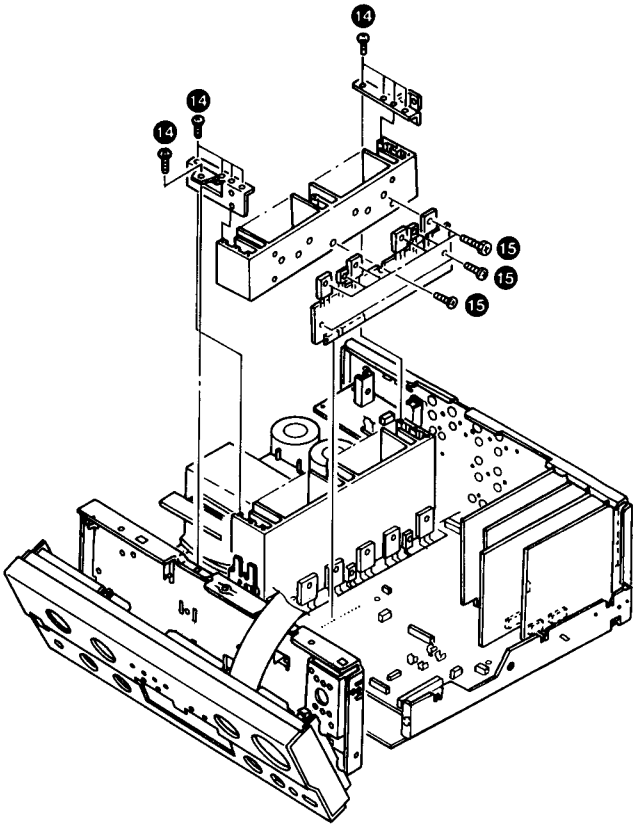
DISASSEMBLY FOR REPAIR

How to remove the surround unit

1. Remove the sub panel assembly (⑤) according to the instructions for removing the panels. (In this case it is not necessary to remove the knobs).
2. Remove the 4 screws (⑩) and lift off the shield cover.
3. Remove the 3 push rivets (⑪) and pull up the X08 A/6 and B/6.
4. Remove the 4 screws (⑫) and lift off the front side of the center frame. (At this point you can check the rear amplifier's power unit.)
5. Turn over the set, remove the bottom panel's 9 screws and lift off the bottom panel.
6. From the bottom side, remove the soldering of the X08 E/6 connector CN12 (⑬).

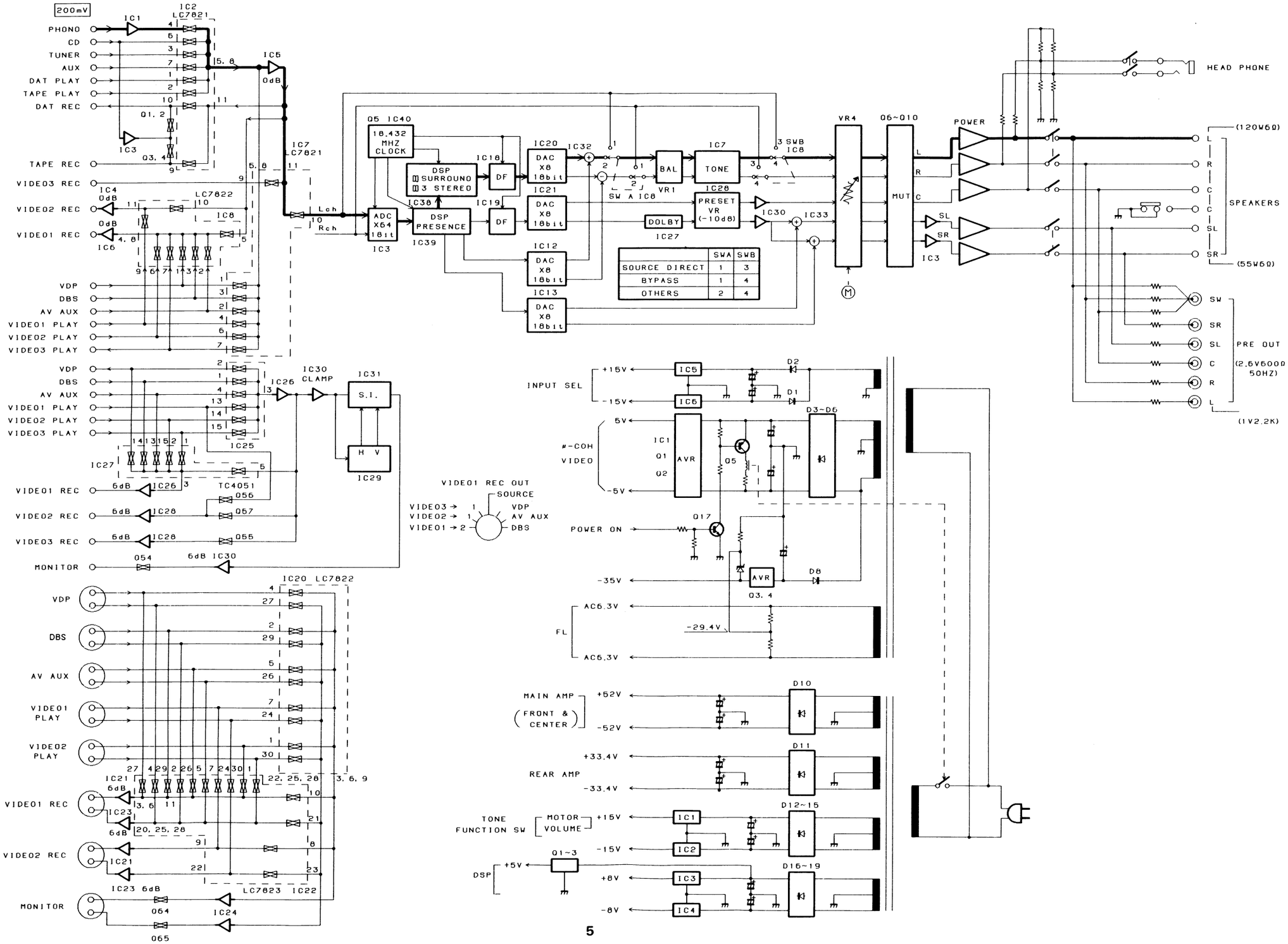


7. Turn over the set again (5, 6., upright it) remove the 9 screws (⑭) and lift off the heat sink and the X08 E/6. (At this point you can check the final transistors.)
8. If necessary the 9 screws (⑮) can be removed to allow removal of the X08 E/6.



KA-V8500 KA-V8500

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

Outline

(1) Features

1. Input selectors
   - Audio : six circuits
   - AV : six circuits
   - S inputs : five circuits
   - S outputs : three circuits
2. TV on screen function
3. FL display
4. Surround user memory
5. Mode: Dolby Surround ProLogic, Dolby 3 stereo, DSP, DSP logic
6. Dolby Surround ProLogic (Normal, Wide, Phantom)
7. Dolby 3 stereo (Normal, Wide)
8. DSP, Presence mode during use of DSP logic
   . . . Movie Theater1, Movie Theater2, Movie Theater3, Arena, Opera House, Cathedral, Jazz Club, Stadium
9. Delay time : 0-80ms (during use of DSP logic)
   15-30ms (during use of Dolby Surround ProLogic)
   1ms step delay time
10. Remote controller compatibility
11. Serial input/output . . . Asynchronous serial communications
12. Source direct
13. Video1 independent rec selector (with V1>V2 dubbing-position), CD Rec
14. Title input
15. Function backup
16. Audio injection function
17. Cinema screen function (only during use of DSP or DSP logic)
18. Speakers CH mode selector switch (only during use of-DSP or DSP logic)
    DSP . . . 2ch, 3ch (L-C-R) 4ch (L-R-S), 5ch (L-C-R-S)
19. Parameters (only during use of DSP or DSP logic)
    . . . Room size, Wall (frequency), Seat position, Effect level

Parameter Setting Range

		Parameters				Cinema screen	Delay time	Senter level	Rear level
		Room size	Wall	Seat position	Effect level				
		50 steps	1kHz steps	5 steps	5 steps		1ms steps	1dB steps	1 dB steps
DSP	MOVIE 1 MOVIE 2 MOVIE 3 ARENA OPERA CATHEDRAL JAZZ CULB STADIUM	50 ≀ 200	1kHz ≀ 16kHz	5 ≀ 100	0 ≀ 100	OFF 1 2 3	—	0dB ≀ -30dB	0dB ≀ -30dB
DSP LOGIC	MOVIE 1 MOVIE 2 MOVIE 3 ARENA OPERA CATHEDRAL JAZZ CLUB STADIUM	50 ≀ 200	1kHz ≀ 16kHz	5 ≀ 100	0 ≀ 100	OFF 1 2 3	0ms ≀ 80ms	0dB ≀ -30dB	0dB ≀ -30dB
DOLBY	PRO LOGIC	—	—	—	—	—	15ms ≀ 30ms	0dB ≀ -30dB	0dB ≀ -30dB
	3STEREO	—	—	—	—	—	—	0dB ≀ -30dB	—

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CIRCUIT DESCRIPTION

1.Initial states

1. INPUT SELECTOR
   - AUDIO : TUNER
   - VISUAL : None
2. MODE : BYPASS
3. PRO LOGIC/3 STEREO : PRO LOGIC
4. CENTER MODE
   - PRO LOGIC : NORMAL
   - 3 STEREO : NORMAL
5. REAR,CENTER LEVEL : -10dB
6. SOURCE DIRECT : OFF
7. SPEAKER : ON
8. POWER : OFF
9. ON SCREEN DISPLAY (INFORMATION) : ON
10. SURROUND USER MEMORY
    - PRO LOGIC (NORMAL)
    - REAR LEVEL -10dB
    - CENTER LEVEL -10dB
    - DELAY TIME 20ms
11. CH MODE :5 CH(L,C,R,S)
12. DELAY TIME
    - PRO LOGIC : 20ms
    - DSP LOGIC : 20ms
13. USER MEMORY NUMBER : NOT ON (A~J)
14. AUDIO INJECTION : OFF

2, Test mode

2 – 1 Initialization

IN : Hold down the power key , and pluy the power cable into an outlet.

Description : When the items are set as in described 1, "Initial states", the EEPROM is cleared.

Note : If only the backup of a microprocessor fails, the EEPROM may not need to be cleared, but if the EEPROM is replaced, initialization is mandatory. If initialization is not carried out, the input selector, user memory title, and user memory will be incorrect.

2 – 2 Test mode

IN : Hold down the CD REC key, and plug the power cable intom an outlet.

OUT : Disconnect the power cable from the outlet, or switch the power off and then back on in any mode except the all – indicator – on mode. Even if the power is switched on in the all – indicators – on mode, the test mode remains unchanged.

Description :

Ⅰ) When the test mode is entered, all the indicators of the fluorescent display light. The indicators can be turned off by switching the power off and then back on, or by handling the ROTARY. ENCODER of input.

Ⅱ) In the test mode, the following items are different from in the normal mode.

◇Rear, center volume
→Only two points, MIN and MAX

◇Delay time
→PRO LOGIC : Only three points, 15, 21, and 30 ms
→DSP LOGIC : Only three points, 0 , 40 , and 80 ms

◇Effect Level
Only three points -- 0, 50, 100

◇Seat Position
Only two points -- 5, 100

◇Test Tone
The Test Tome output position is automatically changed every two seconds.

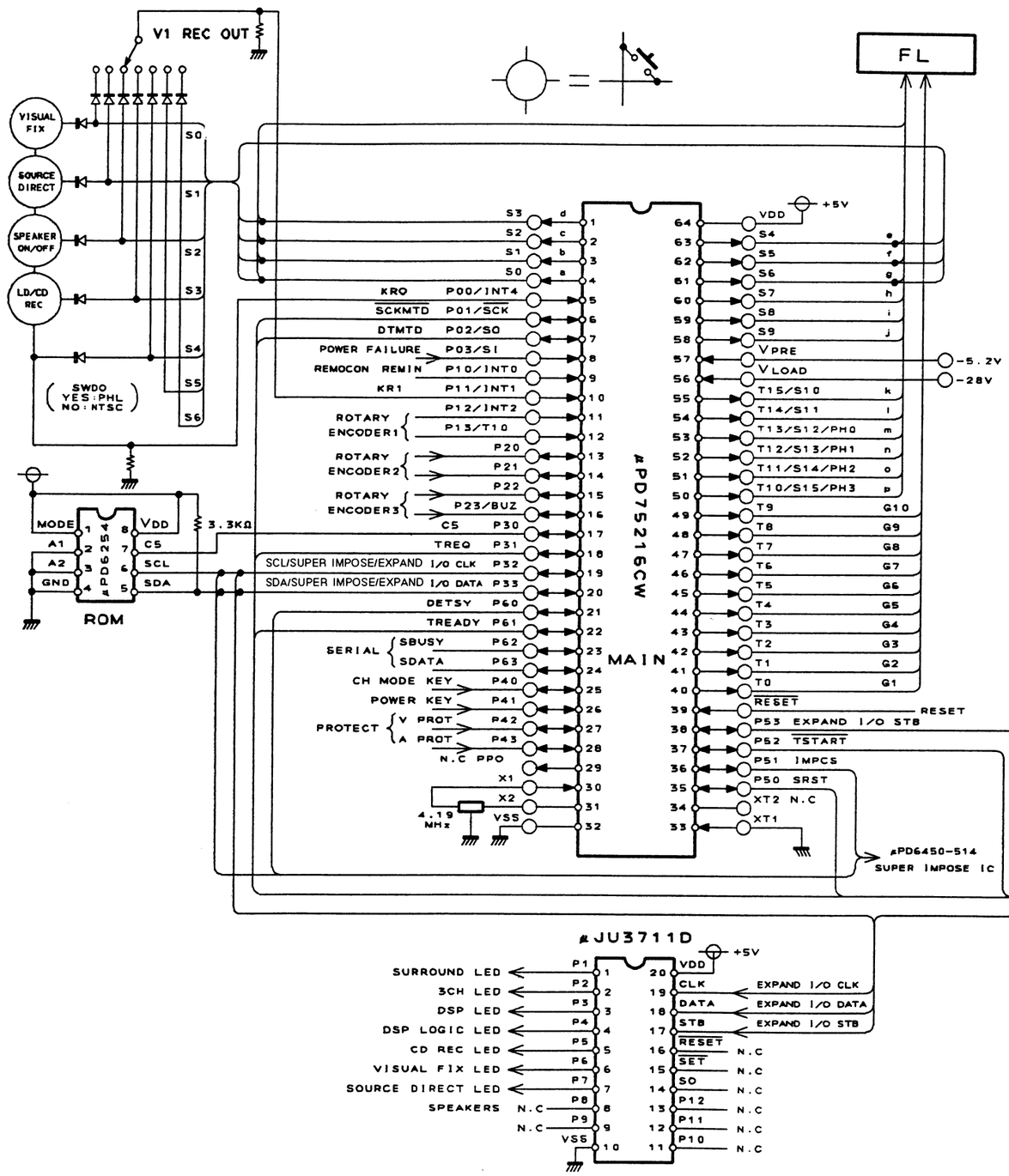
◇DSP Through Mode
During Test Mode if "Cathedral" is selected in DSP Mode or DSP Logic Mode, DSP Through Mode (a mode exclusively for Test Mode) is entered.

DSP parameter initial values

Ambience mode	ROOM SIZE	WALL	SEAT	EFFECT
MOVIE THEATER1	100	10kHz	50	60
MOVIE THEATER2	100	10kHz	50	60
MOVIE THEATER3	100	7kHz	50	60
JAZZ CLUB	100	10kHz	50	80
STADIUM	100	5kHz	50	80
ARENA	100	7kHz	50	60
OPERA HOUSE	100	7kHz	50	80
CATHEDRAL	100	16kHz	50	80

CIRCUIT DESCRIPTION

Microprocesser (μ PD75216ACW-C60' μ PD78214CW-E5,NJU3711D)



CIRCUIT DESCRIPTION

μ PD75216ACW-C60 (MAIN) Pin Description

Pin No.	Pin Name	I/O	Name	Description
1	S3	O	Segment d	FL segment signal
2	S2	O	Segment c	FL segment signal
3	S1	O	Segment b	FL segment signal
4	S0	O	Segment a	FL segment signal
5	P00/INT4	I	KR0	Key Return 0
6	P01/SCK	I/O	SCKMTD	Main --> Sub microprocessor communications serial clock output
7	P02/S0	I/O	DTMTD	Main --> Sub microprocessor communications serial data output
8	P03/SI	I	PCE	Power failure detection output (0: power failure)
9	P10/INT0	I	REMIN	Remote controller input (interrupt)
10	P11/INT1	I	KR1	Key Return 1
11	P12/INT2	I	ROTRY1	Rotary encoder input1 (Input Selector)
12	P13/TI0	I	ROTRY2	Rotary encoder input2 (Input Selector)
13	P20	I	ROTRY3	Rotary encoder input3 (Mode Selector)
14	P21	I	ROTRY4	Rotary encoder input4 (Mode Selector)
15	P22	I	ROTRY5	Rotary encoder input5 (Presence Selector)
16	P23/BUZ	I	ROTRY6	Rotary encoder input6 (Presence Selector)
17	P30	I	EEPDI	EEPROM serial data input
18	P31	O	TREQ	Main --> Sub microprocessor communications control signal (request signal)
19	P32	O	EEPCLK(SCL) / IMPCLK / EXI0CLK	EEPROM/superimpose/expansion I/O shared use Superimpose external/internal synchronization detection (H:internal)
20	P33	O	EEPDO(SDA/) / IMPSI / EXI0DO	Serial clock output EEPROM/superimpose/expansion I/O shared use
21	P60	I	DETSY	Serial data output
22	P61	I	TREADY	Main --> Sub microprocessor communications control signal (ready signal)
23	P62	I/O	SBUSY	External serial communications busy signal
24	P63	I/O	SDATA	External serial communications data signal
25	P40	I	KRSPM	CH mode key (independent key) Key Return
26	P41	I	KRPOW	Power mode key (independent key) Key Return
27	P42	I	PROTECT	Protection detection (H: protection on)
28	P43	I	IMPBSY	Superimpose busy signal input
29	PP0	O	SRST	SUB microprocessor reset signal detect
30	X1	—	—	Microprocessor system clock oscillation pin
31	X2	—	—	Microprocessor system clock oscillation pin
32	Vss	—	—	GND

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CIRCUIT DESCRIPTION

μ PD75216ACW-C60 (MAIN) Pin Description

Pin No.	Pin Nomenclature	I/O	Name	Description
33	XT1	—	—	Microprocessor sub clock oscillation pin (unused)
34	XT2	—	—	Microprocessor sub clock oscillation pin (unused)
35	P50	O	EEPCS	EEPROM CS & Reset output
36	P51	O	IMPCS	Superimpose chip select signal output
37	P52	O	TSTART	Main --> Sub microprocessor communications control signal (start signal)
38	P53	O	EXIOSTB	Expansion I/O (NJU3711) strobe signal
39	RESET		—	Reset input
40	T0	O	G1	FL digit signal
41	T1	O	G2	FL digit signal
42	T2	O	G3	FL digit signal
43	T3	O	G4	FL digit signal
44	T4	O	G5	FL digit signal
45	T5	O	G6	FL digit signal
46	T6	O	G7	FL digit signal
47	T7	O	G8	FL digit signal
48	T8	O	G9	FL digit signal
49	T9	O	G10	FL digit signal
50	T10/S15	O	Segment g	FL digit signal
51	T11/S14	O	Segment h	FL digit signal
52	T12/S13	O	Segment i	FL digit signal
53	T13/S12	O	Segment j	FL digit signal
54	T14/S11	O	Segment k	FL digit signal
55	T15/S10	O	Segment l	FL digit signal
56	V load	—	—	-31.8V
57	V pre	—	—	-4.1V
58	S9	O	Segment m	FL digit signal
59	S8	O	Segment n	FL digit signal
60	S7	O	Segment o	FL digit signal
61	S6	O	Segment p	FL digit signal
62	S5	O	Segment f	FL digit signal
63	S4	O	Segment e	FL digit signal
64	Vdd	O	—	+5.0V

CIRCUIT DESCRIPTION

Data communications format between main microprocessor and DSP microprocessor

* Master microprocessor μ PD75216ACW-C60
* Slave microprocessor μ PD78214CW-E25

(1) Communications method: clock synchronization(LSBlead)

(2) Data bit no. 8× n bit variable length

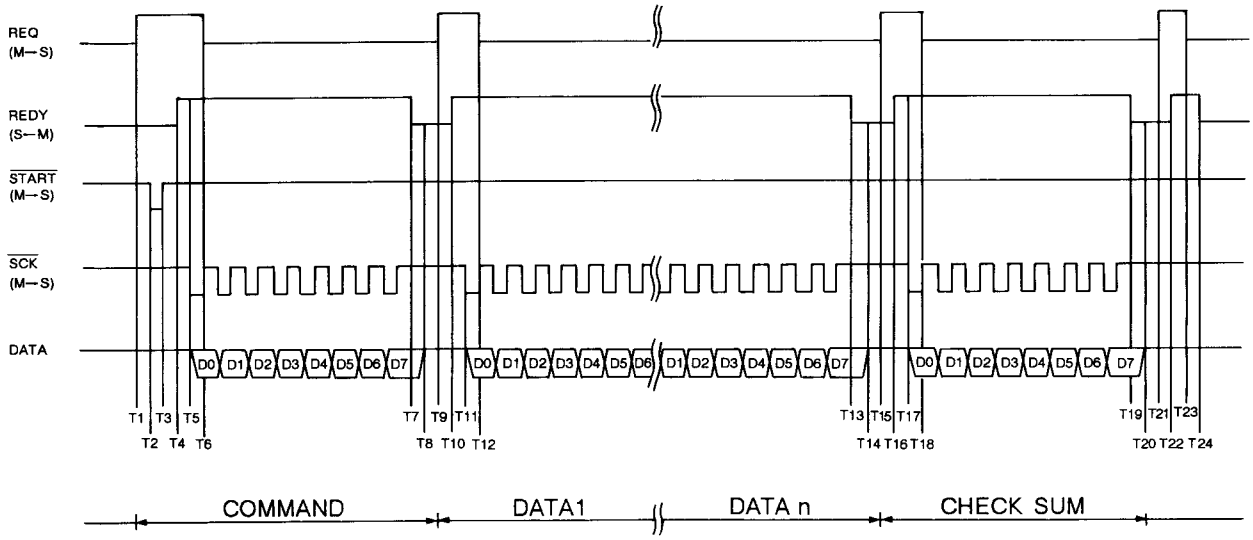
(3) Serial clock: Clock provided from master microprocessor
Clock pulse width = 7.6μS

(4) Data composition

	Command	Data 1	Data 2		Data n	Check sum
Address	0	1	2		n	n+1

- n =0 ~11
- The check sum is the aggregate lower 8 bits of the data from the command to datan.

(5) Time chart


REQ (M—S)
REDY (S—M)
START (M—S)
SCK (M—S)
DATA
D0 D1 D2 D3 D4 D5 D6 D7
T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16 T17 T18 T19 T20 T21 T22 T23 T24
COMMAND
DATA1
DATA n
CHECK SUM

CIRCUIT DESCRIPTION

μPD78214CW-E25 (sub microprocessor) pin description

Pin No.	Pin Name	I/O	Name	Description
1	P03	O	MCDREC	CD REC mute (L = mute on)
2	P04	O	MV1V2	VIDEO1 ► VIDEO2 mute (H = mute on)
3	P05	O	MMUTE	Monitor mute (H = mute on)
4	P06	O	MV2LOP	VIDEO2 loop prohibit mute (H = mute on)
5	P07	O	MV3LOP	VIDEO3 loop prohibit mute (H = mute on)
6	P67	O	OVERL	Sanyo DSP auxiliary pin (unused)
7	P66	O	SRDY	Sanyo DSP mailbox communications complete signal
8	P65	O	CBCI	NPC clock
9	P64	O	RST	Sanyo DSP reset signal
10	P63	O	SIRQ	Sanyo DSP request signal
11	P62	O	SELSTB	Audio/video selector (LC78**) chip enable
12	P61	O	SELDI	Audio/video selector (LC78**) data
13	P60	O	SELCLK	Audio/video selector (LC78**) clock
14	RESET	I	—	Master CPU ► slave CPU chip reset
15	X2	—	—	System clock oscillation crystal (12MHz) connection
16	X1	I	—	System clock oscillation crystal (12MHz) connection
17	Vss	—	—	GND
18	P57	O	ACRLY	Main unit power on/off relay
19	P56	O	SDBYCE	Source direct/bypass selector switch chip enable
20	P55	O	I4051A	Input selector control wire A (TC4051)
21	P54	O	I4051B	Input selector control wire B (TC4051)
22	P53	O	I4051C	Input selector control wire C (TC4051)
23	P52	O	R4051A	Rec selector control wire A (TC4051)
24	P51	O	R4051B	Rec selector control wire B (TC4051)
25	P50	O	R4051C	Rec selector control wire C (TC4051)
26	P47	O	SRLY	Rear speaker relay (H = sound produced)
27	P46	O	HDRLY	Headphone relay (H = sound produced)
28	P45	O	FRLY	Front speaker relay (H = sound produced)
29	P44	O	CRLY	Center speaker relay (H = sound produced)
30	P43	O	ANMUT	Audio mute (H = mute on)
31	P42	O	VOLLD	Electrical volume LED (L = illuminated)
32	Vss	—	—	GND
33	P41	O	MVDN	Electrical volume down (H = motor actuates)
34	P40	O	MVUP	Electrical volume up (H = motor actuates)
35	ASTB	O	—	(Unused) address latch timing output
36	P20/NM1	I	TSTART	Master CPU ► slave CPU start signal
37	P21	I	—	(Unused) Pull up
38	P22	I	—	(Unused) Pull up
39	P23	I	—	(Unused) Pull up
40	P24	I	—	(Unused) Pull up
41	P25	I	SIKA	Sanyo DSP ► slave CPU acknowledge signal
42	P26	I	TREQ	Master CPU ► slave CPU request signal
43	P27/SI	I	DTMTD	Master CPU ► slave CPU data
44	P30	I	TREADY	Master CPU ◄ slave CPU ready signal
45	P31	O	CDIO	NPC IC data
46	SCK	I/O	SCKMTD	SCKMTD or Sanyo DSP clock
47	P33/SO	O	SANYDT	Sanyo DSP data

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Name	Description
48	EA	I	—	(unused) used at high level
49	Vdd	—	—	Positive power supply
50	Avss	—	—	(Unused) A/D converter GND
51	AVref	—	—	(Unused) A/D converter
52	P75/AN5	I	—	(Unused) pull down
53	P74/AN4	I	—	(Not Used) Pull down
54	P73/AN3	I	—	(Not Used) Pull down
55	P72/AN2	I	—	(Not Used) Pull down
56	P71/AN1	I	—	(Not Used) Pull down
57	P70/AN0	I	—	(Not Used) Pull down
58	P34/T00	O	CDIE	NPC chip enable
59	P35/T01	O	SEND	NPC input/output control
60	P36/T02	O	NPCRST	NPC reset (H=reset)
61	P37/T03	O	DMUTE	Sanyo DSP mute
62	P00	O	VOLCE	Electronic volume (TC9213) chip enable
63	P01	O	VOLCLK	Electronic volume (TC9213) clock
64	P02	O	VOLDI	Electronic volume (TC9213) data

NJU3711D (I/O PORT)

Pin No.	Pin Name	I/O	Name	Description
1	P3	O	DSPLED	DSP LED output
2	P4	O	DSPLOGICLED	DSP logic LED output
3	P5	O	CDRECLED	CD REC LED output
4	V ss	—	—	GND
5	P6	O	AUDIOINJLED	Audio injection LED output
6	P7	O	SDLED	Source direct LED output
7	P8	O	SPLED	Speakers on/off LED output
8	DATA	I	—	Serial data input pin
9	CLK	I	—	Clock signal input pin
10	$\overline{STB}$	I	—	Strobe signal input pin
11	$\overline{CLR}$	I	—	Clear signal input pin
12	P1	O	PROLLED	Dolby ProLogic LED output
13	P2	O	D3STLED	Dolby 3 stereo LED output
14	V dd	—	—	+5.0 V

KA-V8500

CIRCUIT DESCRIPTION

DSP exclusively for digital signal processor (SM5851AF)

1. Introduction

This LSI is a DSP exclusively for digital signal processing in Dolby ProLogic Surround systems. Beginning with an active matrix circuit, this LSI includes the main signal processing logic for Dolby ProLogic Surround Decoders. Accordingly, by combining this LSI with an A-D/D-A con verter IC, digital I/F receiver IC, distorted Dolby Bdcoder IC, digital delay DRAM and a master volume control, it is possible to put together a precision Dolby Proogic Sround decoder system.

Also, as an added function, in combination with DRAM this LSI enables a variety of ambience presence playback functions besides Dolby ProLogic Surround. Furthermore, the flexible interface facilitates integration into a wide range of systems.

2. Salient characteristies

2-1. Functions Dolby ProLogic Surround Decoder Related **Functions**

(1) Active Matrix
- * Bandwidth limiting tertiary IIR type BPF
- * Absolute value circuit
- * Linear / LOG conversion circuit
- * Threshold switch
- * Polarity splitter
- * LOG / linear conversion circuit
- * Converting network

(2) Center channel mode control
- * Selection among the normal, phantom or off modes
- * Wide mode addition

(3) 3 stereo logic mode
- * 3-channel mode without use of surround speakers

(4) Auto balance
- * Input signal level auto balance function
- * Auto / through switch

(5) Noise sequencer
- * Built-in noise sequencer for calibration
- * Noise average output level is set -11 dB lower than the output Dolby standard level (-18dB)

(6) S channel functions
- * Digital delay (DRAM) interface
- * Bandwidth limiting secondary IIR type LPF

2-2. Ambience playback function

(1) Dual mode selection -- effects, simulation

(2) Delay time controllable through microprocessor

(3) Ambience 2-channel (SL, SR) output

2-3. Stereo playback functions

(1) Stereo playback mode (may be used as a digital deemphasis filter)

2-4. Input/output interface

(1) Two serial data input circuits
- * Three-line input from digital I/F receiver: 1 circuit
- * A/D converter regulation clock output and data input: 1 circuit
- * Format
  16 bit; two's complement; MSB format
  L/R channel pair

(2) Two serial data output modes
- * 4-circuit serial output mode
  L/R exchange, C/MONO exchange, C (SL) /S (SR) exchange, LMON/RMON exchange output
- * 3-circuit serial output mode
  C (SL)/L/S(SR)/R exchange, LMON/C/RMON/MONO exchange, LMON/C(SL)/RMON/S(SR) exchange
- * 2 types of sample/hold controlsignaloutputs(SH1,SH2)
- * Format
  16/18 bit selectable
  Two's complement; MSB format

(3) Microprocessor interface
- * 4-wire type serial data input / output
- * Asynchronous input/output vis-a-vis system clock pos sible

(4) Digital delay (DRAM) interface
- * 256K DRAM (64K x 4 bit composition) direct interface
- * Four types of delay time control

2-5 Sampling frequency (fs)

(1) Accommodates three sampling frequencies -- 48kHz, 44.1kHz, 32kHz

(2) Each filter coefficient automatically selectable from the selected fs

(3) During A/D converter input selection, fixed at fs=48kHz

2-6. System clock

(1) System clock frequency: 384fs

(2) DSP master mode: 384fs and X'tal frequency or clock input

(3) DSP slave mode: 384fs input

2-7. Deemphasis function

(1) Digital deemphasis filter on/off switching

2-8. Dolby standard level

(1) The input signal is Dolby standard level: -15dB (however, 16 bit full scale is 0dB)

(2) The output signal at the L/R ch is Dolby standard level: -18dB
The output signal at the C/S ch is Dolby standard level: -15dB
(however, this is because the C/S ch is reduced -3dB during encoding)

2-9. Level/meter graphic output
- * Overflow display output (16 bit full scale -0.068dB, or greater)
- * Dolby level display output (16 bit full scale -15dB, or greater)

CIRCUIT DESCRIPTION

2-10. Package -- 64 pin QFP (evaluation-use 64-pin DIP)
2-11. Power supply voltage -- 5V single power supply
2-12. Structure -- Morigate CMOS

Test Mode

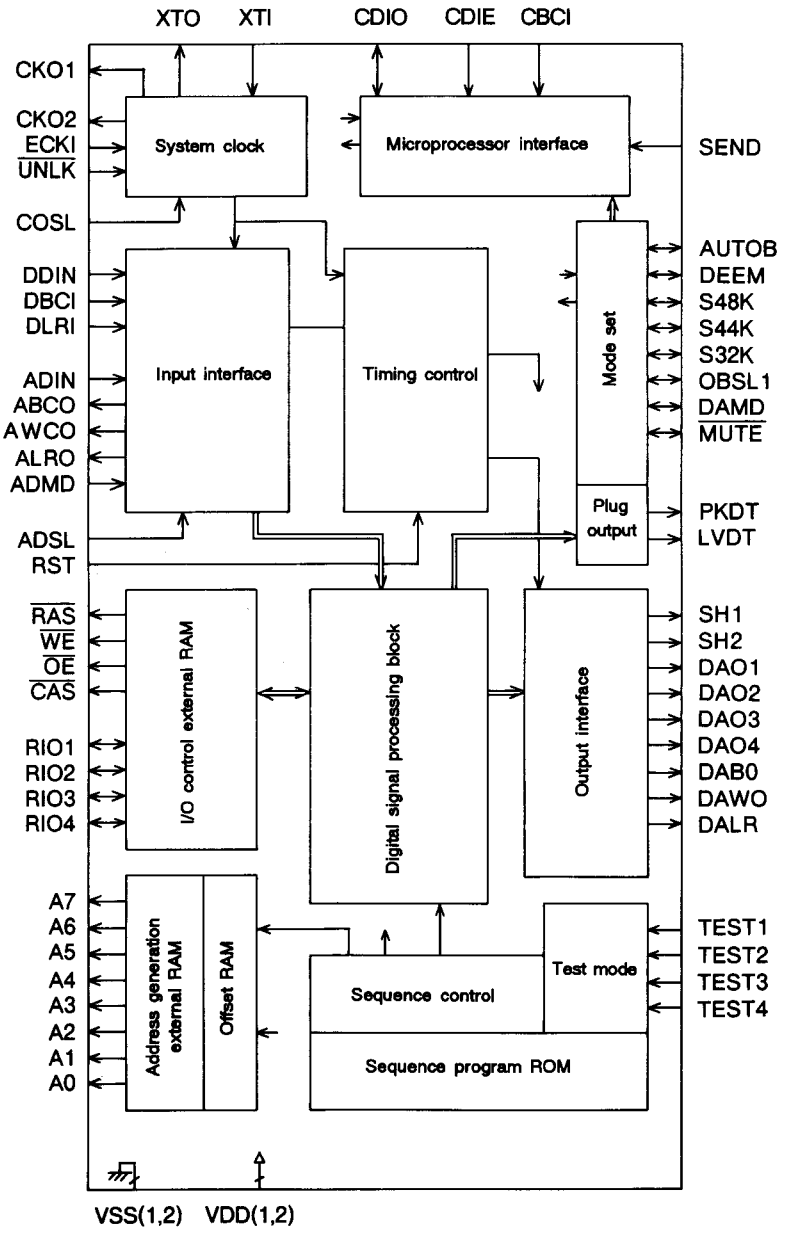
(1) Digital through test mode (TEST4)
This mode is for evaluation of the DAC system. By making the TEST4 pin 'L' the following input data LMON, RMON are output on the L, R, C, S, SL, SR, LMON, RMON and MONO output channels.

Table 8-11-1 Digital through test mode output data allocation

Output ch	L	R	C	S	SL	SR	LMON	RMON	MONO
Output data	LMON	RMON	LMON	RMON	LMON	RMON	LMON	RMON	RMON

when in this mode, the digital deemphasis function operates but the auto balance function does not. Also, LVDT and PKDT are not output.

3. Block diagram



CIRCUIT DESCRIPTION

5. Pin functions

Pin number	Pin nomenclature	IO	Pin function	Test output
1	XTI	I	X'tal oscillation input pin (oscillation frequency: 384fs)	
2	XTO	O	X'tal oscillation input pin	
3	CKO1	O	Master clock output1 (clock frequency: 384 fs or 192 fs)	
4	CKO2	O	Master clock output1 (clock frequency: 128 fs)	
5	ECKI	Ip	D-I/F external master clock input (clock frequency: 384 fs)	
6	$\overline{\text{UNLK}}$	Ip	D-I/F VCO unlock flag ($\overline{\text{UNLK}}$='L': VCO unlock; $\overline{\text{UNLCK}}$='H':VCO lock)	
7	COSL	Ip	CKO1 frequency switching (COSL='L': 192 fs; COSL='H': 384 fs)	
8	VSSI	—	GND pin 1 (0V)	
9	DDIN	Ip	Serial data input from the digital I/F	
10	DBCI	Ip	Bit clock input from the digital I/F	
11	DLRI	Ip	LR clock input from the digital I/F	
12	ADSL	Ip	Digital audio signal input selection (ADSL='L': D-I/F; ADSL='H': ADC)	
13	ADIN	Ip	Serial data input from ADC	
14	ABCO	O	Bit clock output for ADC control	
15	AWCO	O	Word clock output for ADC control	
16	ALRO	O	fs rate clock output from ADC	
17	ADMD	Ip	ADC mode control (ABCO selection) (ADMD='H': 32fs; ADMD='L': 64fs)	
18	VDD2	—	Power supply voltage 2 (5.0V)	
19	A7	O	External digital delay DRAM address output (bit 7)	
20	A4	O	External digital delay DRAM address output (bit 4)	
21	A3	O	External digital delay DRAM address output (bit 3)	
22	A5	O	External digital delay DRAM address output (bit 5)	
23	A2	O	External digital delay DRAM address output (bit 2)	
24	A6	O	External digital delay DRAM address output (bit 6)	
25	A1	O	External digital delay DRAM address output (bit 1)	
26	$\overline{\text{RAS}}$	O	External digital delay DRAM low address strobe output	
27	A0	O	External digital delay DRAM address output (bit 0)	
28	$\overline{\text{WE}}$	O	External digital delay DRAM write enable output	
29	RIO3	IO	External digital delay DRAM data input/output (bit 3)	
30	RIO2	IO	External digital delay DRAM data input/output (bit 2)	
31	$\overline{\text{CAS}}$	O	External digital delay DRAM column address strobe output	
32	RIO1	IO	External digital delay DRAM data input/output (bit 1)	
33	RIO4	IO	External digital delay DRAM data input/output (bit 4)	
34	$\overline{\text{OE}}$	O	External digital delay DRAM output enable output	

CIRCUIT DESCRIPTION

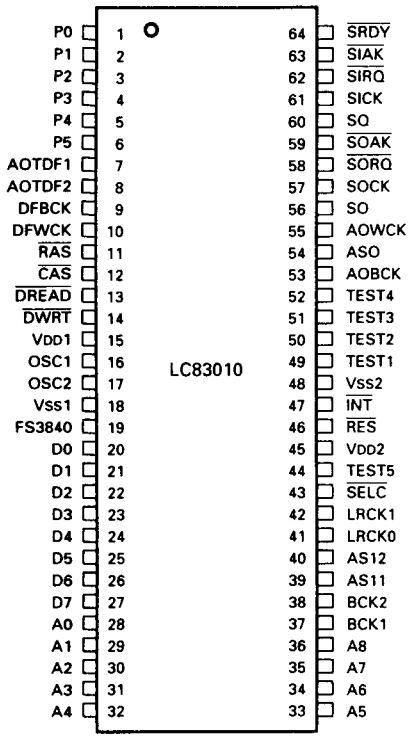
Pin No.	Pin Nomenclature	I/O	Pin Function	Test output
46	TEST1	Ip	Test pin 1	
47	TEST2	Ip	Test pin 2	
48	TEST3	Ip	Test pin 3	
49	TEST4	Ip	Test pin 4	
50	DAMD	IO	DAC output mode control input (DAMD = 'L': 3-circuit output; DAMD = 'H': 3-circuit output)	T009
51	OBSL	IO	DAO1—DAO4 output bit length setting (OBSL = 'L': 18 bit; OBSL = 'H': 16 bit)	T010
52	S32K	IO	fs = 32kHz select (S32K = 'L':unselected; S32K = 'H':selected)	T011
53	S44K	IO	fs = 44.1kHz select (S44K = 'L':unselected; S44K = 'H':selected)	T012
54	S48K	IO	fs = 48kHz select (S48K = 'L':unselected; S48K = 'H':selected)	T013
55	DEEM	IO	Deemphasis filter on/off control input (DEEM = 'L': OFF; DEEM = 'H': ON)	T014
56	AUTO	IO	Auto balance on/off control input (AUTOB = 'L': OFF; AUTOB = 'H': ON)	T015
57	$\overline{\text{MUTE}}$	IO	Output data mute control input (MUTE = 'L': mute on; MUTE = 'H': mute off)	T016
58	RST	I	System reset input (RST = 'L': normal operation; RST = 'H': reset)	
59	CDIO	IO	Microprocessor control serial data input/output	
60	$\overline{\text{CDIE}}$	Ip	Microprocessor control input data latch enable input	
61	CBCI	Ip	Microprocessor control bit clock input	
62	SEND	Ip	Microprocessor control input/output control (SEND = 'L': receive: SEND = 'H': send)	
63	PKDT	O	Input signal peak level detection flag	
64	LVDT	O	Input signal Dolby level optimum setting flag	

(I/O definition) I = input pin (without pull-up condenser)
Ip = input pin (with pull-up condenser)
O = Output pin
I/O = pin for both input and output (with pull-up condenser during input)

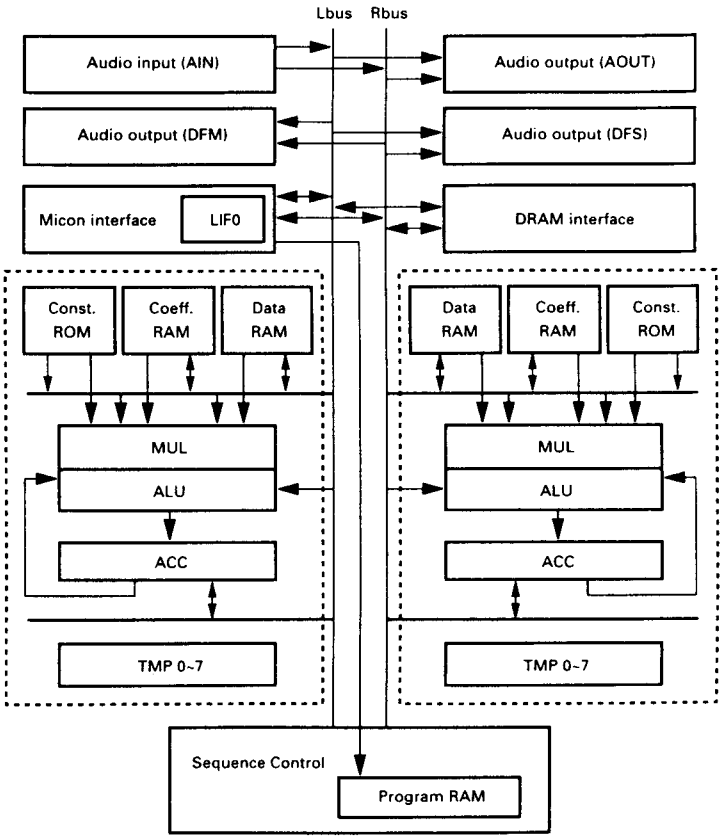
CIRCUIT DESCRIPTION

DSP IC [LC83010] (IC16 : X08)

Terminal Connection Diagram (Top View)



Block Diagram



CIRCUIT DESCRIPTION

Terminal Description [LC83010]

Pin No.	Pin name	I/O	Description	
1	P0	I	Digital mute - High: mute; Low: unmute during DSP program	
2	P1	I	Soft muting - High during DSP program: Soft mute with time constant of 1 ms; Low: Unmute	
3	P2	O	Overflow detection If the input data from the A/D converter becomes the maximum positive or negative value a low signal is output, held for 100 ms, and goes high.	
4	P3	I	Phase shifter control The phase shifter is turned on and off during 3-channel sound field program. Low: on; High; off. Always used with "LOW".	
5	P4	I	Direct sound add control Control whether direct sound is added in the DSP during sound field program. High: Add; Low: Do not add. Always used with "LOW".	
6	P5	I/O	General input/output port No used (open)	
7	AOTDF2	O	Audio data output 1 C ch and S ch data is output during Dolby pro logic and 4-ch sound field. If 3 stereo and 3-CH are set, only C ch data is output.	
8	AOTDF2	O	Audio data output 2 Decoded L/R data is output for Dolby. The L/R sound field signal is output for sound field.	
9	DFBCK	O	Bit clock for AOTDF 1 and 2 48 fs bit clock is output.	
10	DFWCK	O	Word clock for AOTDF 1 and 2 No used	
11	$\overline{RAS}$	O	For row address strobe DRAM access control	
12	$\overline{CAS}$	O	For column address strobe DRAM access control	
13	$\overline{DREAD}$	O	DRAM read control signal	
14	$\overline{DWRT}$	O	DRAM write control signal	
15, 45	VDD1, 2	I	Power supply pin	
18, 48	VSS1, 2		GND pin	
16	OSC1	I	Crystal oscillator pin	
17	OSC2	O	Crystal oscillator pin	
19	FS3840	O	384fs output pin	
20 ~ 27	D0 ~ D7	I/O	DRAM data I/O pin	
28 ~ 36	A0 ~ A8	O	DRAM address output pin (A8 is no used)	
37	BCK1	I	No used	
38	BCK2	O	Bit clock output pin 32fs bit clock output for A/D	
39	ASI1	I	No used	
40	ASI2	I	Audio data input pin 2 Data input from A/D	
41	LRCKO	O	L/R clock output pin	
42	LRCKI	I	No used	
43	$\overline{SELC}$	I	Self oscillation and external clock input switching	
44	TEST 5	O	Test pin Used by open	
46	$\overline{RES}$	I	Reset pin	
47	$\overline{INT}$	I	No used	
49 ~ 52	TEST 1 ~ 4	I	Test pin Connected to GND	
53	AOBCK	O	No used	
54	ASO	O	Audio data output (overflow detection)	
55 ~ 59	A0WCK etc.		No used	
60	SI	I	Serial data input from µ-com	DSP ↔ µ-com interface
61	SICK	I	Serial clock input of SI input	
62	$\overline{SIRQ}$	I	SI request signal input	
63	$\overline{SIAK}$	O	Output signal to indicate that the SI serial communication is executing	
64	$\overline{SRDY}$	I	Input signal to indicate that the mail box communication is finished	

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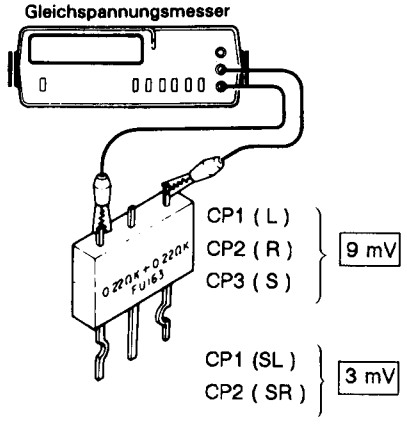
ADJUSTMENT

No.	ITEM	IMPUT SETTINGS	OUT PUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
	Unless you have some special reason otherwise, please use the following settings for each switch: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO						
1	MAIN AMP Idle current (XO9-349)	—	Connect a DC voltometer to CP 1 (L) CP 2 (R) CP 3 (C)	VOLUME: 0	VR1 (L) VR2 (R) VR3 (C)	9 mV	(a)
2	REAR AMP Idle current (XO8-249 E/6)	—	Connect a DC Voltmeter to CP 1 (SL) CP 2 (SR)	VOLUME: 0	VR 1 (SL) VR 2 (SR)	3 mV	(a)
3	Distortion adjustment (XO8-249 A/6)	L & R channels are 1 kHz 25 mV rms at the pin jack input (tuner input)	+40 dB or greater AMP and THD meter from IC17 1 pin	Plug into the outlet while pressing the CD REC key and enter the DSP CATHEDRAL mode. Always wait 10 minutes after turning on the power and then turn on the power again before doing this.	VR4	Minimum distortion	
4	Distortion adjustment (XO8-249 A/6)	L & R channels are 1 kHz 25 mV rms at the pin jack input (tuner input)	+40 dB or greater AMP and THD meter from IC16 1 pin		VR5	Minimum distortion	
5	Distortion adjustment (XO8-249 A/6)	L & R channels are 1 kHz 25 mV rms at the pin jack input (tuner input)	+40 dB or greater AMP and THD meter from IC15 1 pin		VR6	Minimum distortion	
6	Distortion adjustment (XO8-249 A/6)	L & R channels are 1 kHz 25 mV rms at the pin jack input (tuner input)	+40 dB or greater AMP and THD meter from IC14 1 pin		VR7	Minimum distortion	
7	S/N (XO8-249 A/6)	Short with the pin jack input (tuner input)	Noise meter with the center speaker output	In pro logic normal mode, turn the master VR to MAX.	VR3	Minimum noise	

(a) DC voltmeter
Voltmètre de CC
Gleichspannungsmesser



REGLAGE

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINTS DE L'ALIGNMENT	ALIGNER POUR	FIG.
A moins d'avoir des raisons spéciales pour le contraire, nous vous prions d'utiliser les réglages suivants pour chaque commande: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	Courant d'attente d'amplicateur principal (XO9-349)	—	Connecter un voltmètre de CC à CP 1 (L) CP 2 (R) CP 3 (C)	VOLUME: 0	VR1 (L) VR2 (R) VR3 (C)	9 mV	(a)
2	Courant d'attente d'amplicateur arrière (XO8-249 E/6)	—	Connecter un voltmètre de CC à CP 1 (SL) CP 2 (SR)	VOLUME: 0	VR 1 (SL) VR 2 (SR)	3 mV	(a)
3	Ajustement de distorsion (X08-249 A/6)	Les canaux G et D sont 1 kHz 25 mV rms à l'entrée de prise à broche (entrée de tuner)	+40 dV ou plus compteur AMP et THD de IC17 1 broche	Brancher dans la sortie tout en appuyant sur la touche CD REC et passe dans le mode DSP CATHEDRAL.	VR4	Distorsion minimum	
4	Ajustement de distorsion (X08-249 A/6)	Les canaux G et D sont 1 kHz 25 mV rms à l'entrée de prise à broche (entrée de tuner)	+40 dV ou plus compteur AMP et THD de IC16 1 broche		VR5	Distorsion minimum	
5	Ajustement de distorsion (X08-249 A/6)	Les canaux G et D sont 1 kHz 25 mV rms à l'entrée de prise à broche (entrée de tuner)	+40 dV ou plus compteur AMP et THD de IC15 1 broche	Toujours attendre 10 minutes après avoir mis sous tension, puis remettre sous tension avant d'effectuer cela.	VR6	Distorsion minimum	
6	Ajustement de distorsion (X08-249 A/6)	Les canaux G et D sont 1 kHz 25 mV rms à l'entrée de prise à broche (entrée de tuner)	+40 dV ou plus compteur AMP et THD de IC14 1 broche		VR7	Distorsion minimum	
7	S/N (X08-249 A/6)	Court-circuiter avec l'entrée de prise à broche (entrée de tuner)	Indicateur de bruit avec la sortie de haut-parleur central	Dans le mode normal pro logique, tourner le VR principal sur MAX.	VR3	Bruit minimum	

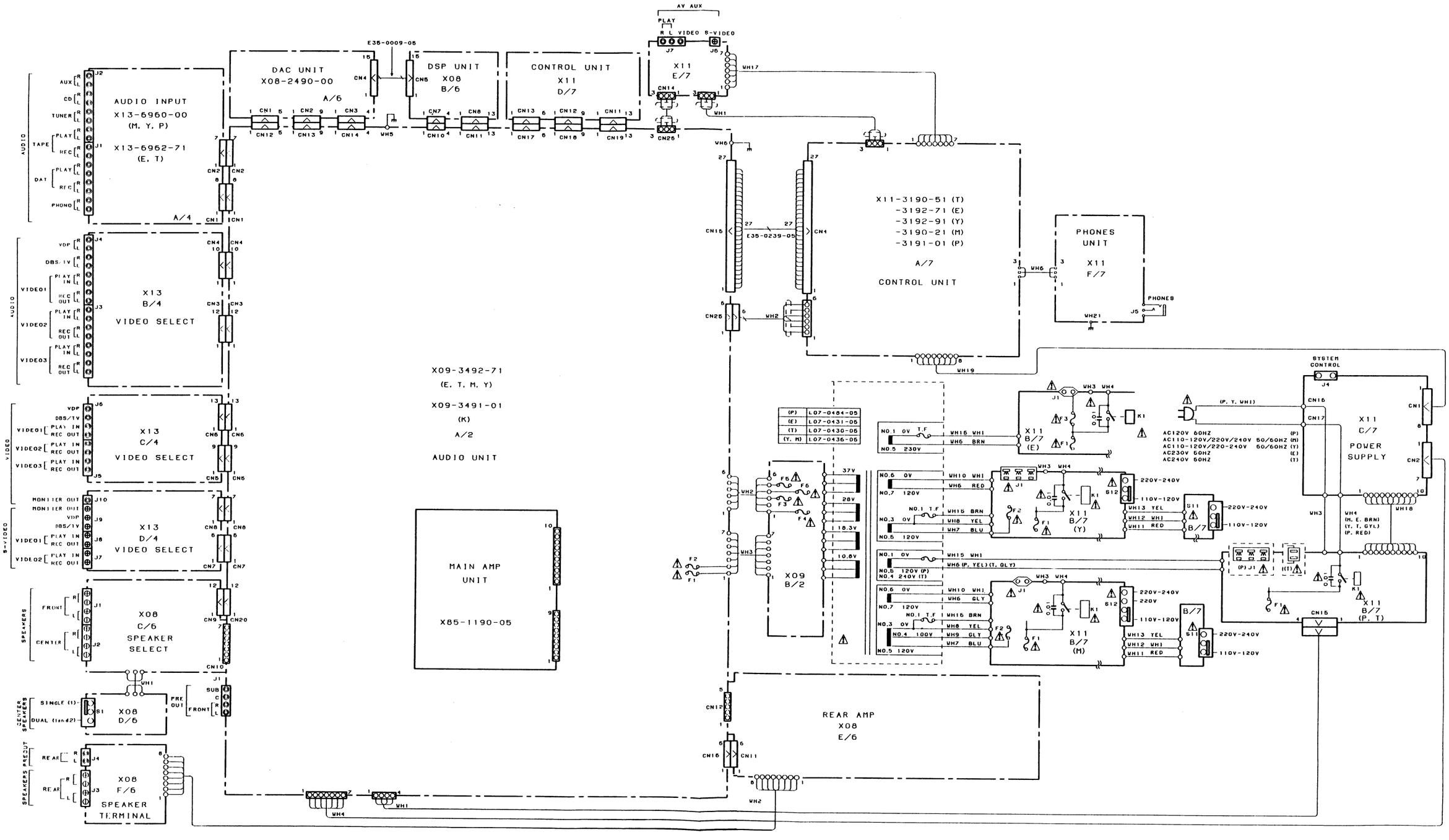
KA-V8500

ABGLEICH

NR.	GENGENSTAND	EINGANGS-EINSTELLUNG	AUSANG-EINSTELLUNG	VORSTÄRKER-EINSTELLUNG	ABGLEICHE-PUNKTE	ABGLEICHEN FÜR	ABB.
Stellen Sie die Schalter bitte wie folgt ein, sofern kein besonderer Grund für eine andere Einstellung besteht: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	Haupt-Verstärker-Leerlaufstrom (XO9-349)	—	Einen Gleichspannungsmesser an CP 1 (L) CP 2 (R) CP 3 (C) anschließen.	VOLUME: 0	VR1 (L) VR2 (R) VR3 (C)	9 mV	(a)
2	Rückverstärker-Leerlaufstrom arrière (XO8-249 E/6)	—	Einen Gleichspannungsmesser an CP 1 (L) CP 2 (R) CP 3 (C) anschließen.	VOLUME: 0	VR 1 (L) VR 2 (R) VR 3 (C)	3 mV	(a)
3	Verzerrung-seinstellung (XO8-249 A/6)	Linker und rechter Kanal sind bei Stiftbuchseneingang (Tuner-Eingang) 1 kHz, 25 mV effektiv	+40 dB oder höher, AMP-und THD-Meter von IC17 1-Pin	In Steckdose einschieben, während die CD REC-Taste gedrückt wird, und auf DSP CATHEDRAL-Modus schalten	VR4	Minimale Verzerrungen	
4	Verzerrung-seinstellung (XO8-249 A/6)	Linker und rechter Kanal sind bei Stiftbuchseneingang (Tuner-Eingang) 1 kHz, 25 mV effektiv	+40 dB oder höher, AMP-und THD-Meter von IC16 1-Pin		VR5	Minimale Verzerrungen	
5	Verzerrung-seinstellung (XO8-249 A/6)	Linker und rechter Kanal sind bei Stiftbuchseneingang (Tuner-Eingang) 1 kHz, 25 mV effektiv	+40 dB oder höher, AMP-und THD-Meter von IC15 1-Pin	Nach dem Einschalten stets 10 Minuten warten und dann den Strom erneut einschalten, bevor dieser Schritt durchgeführt wird.	VR6	Minimale Verzerrungen	
6	Verzerrung-seinstellung (XO8-249 A/6)	Linker und rechter Kanal sind bei Stiftbuchseneingang (Tuner-Eingang) 1 kHz, 25 mV effektiv	+40 dB oder höher, AMP-und THD-Meter von IC14 1-Pin		VR7	Minimale Verzerrungen	
7	S/N (XO8-249 A/6)	Mit Stiftbuchseneingang (Tuner-Eingang) kurzschließen	Fremdspannungsmesser mit Mittellautsprecherausgang	In ''pro logic normal mode'' Haupt-VR auf MAX stellen.	VR3	Minimales Rauschen	

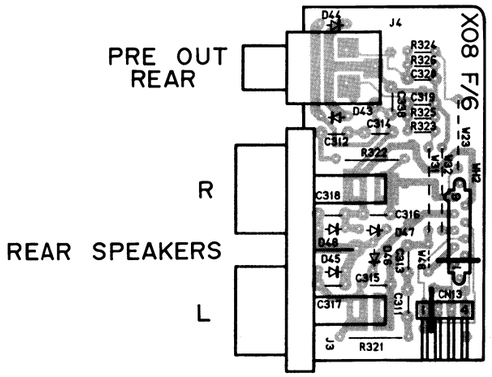
KA-V8500 KA-V8500

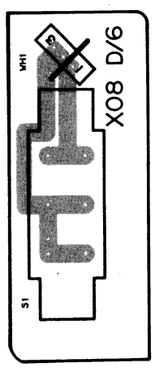
WIRING DIAGRAM

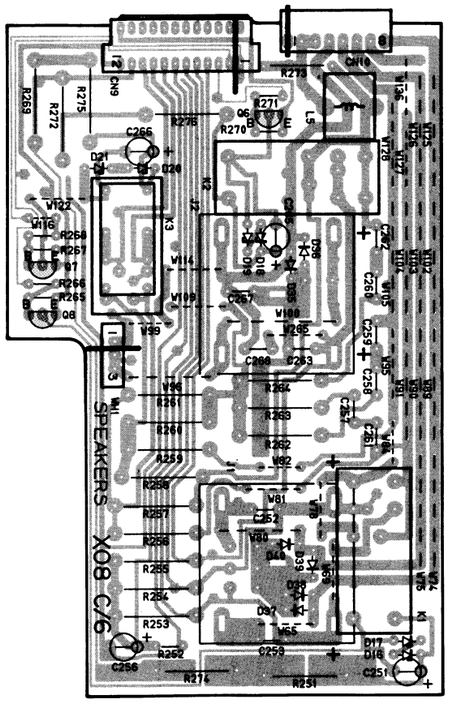


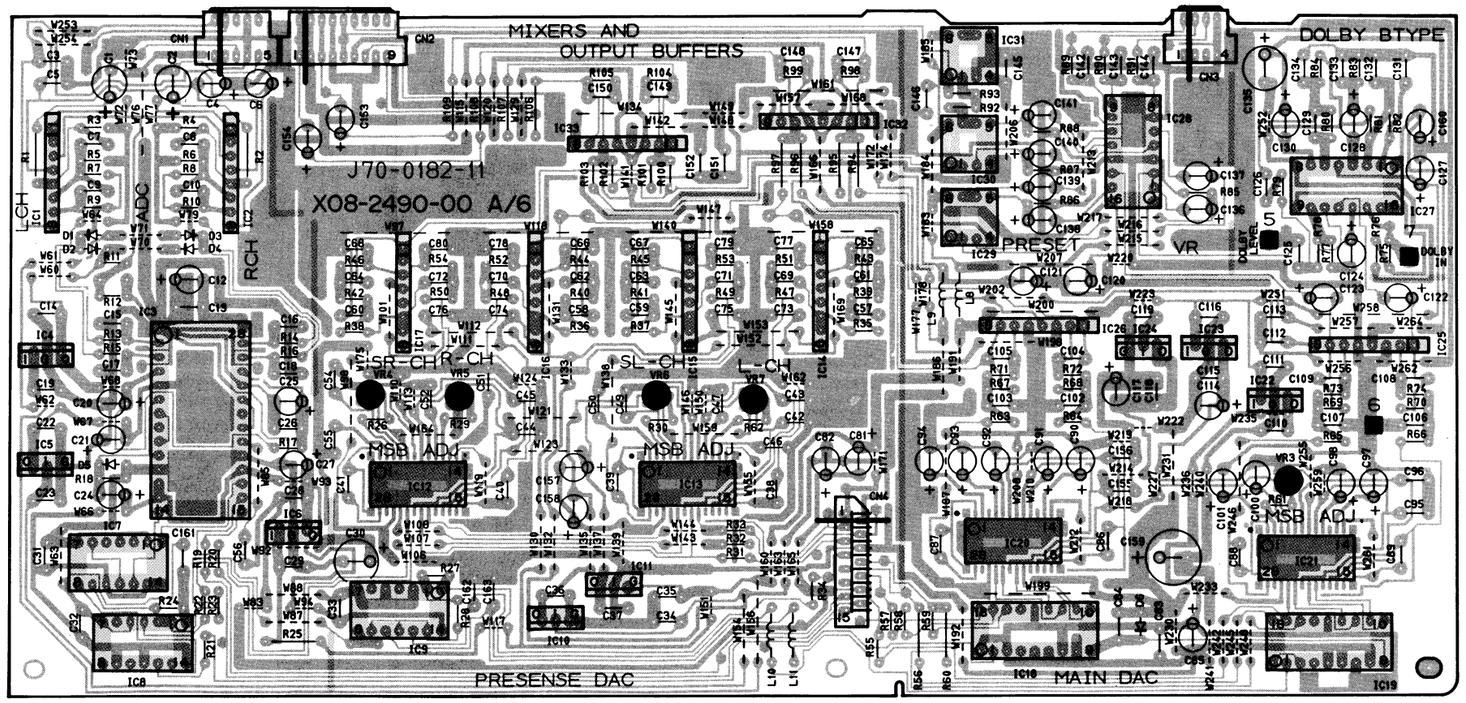
PC BOARD

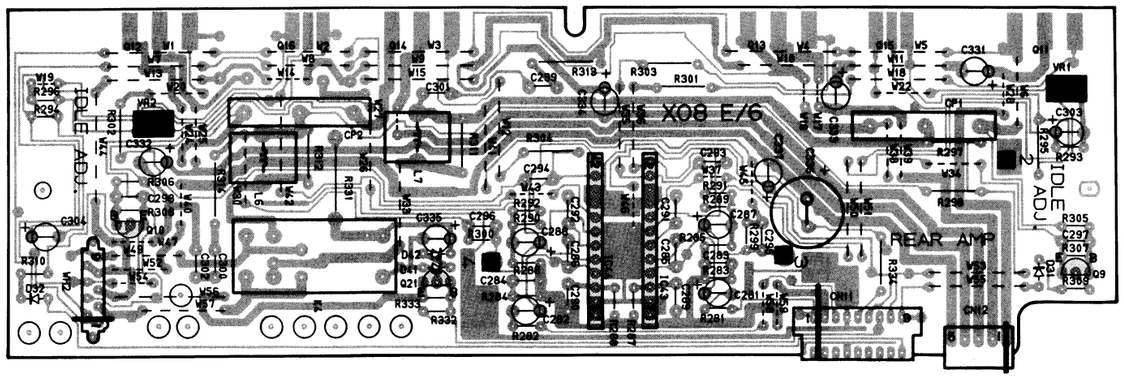
SURROUND UNIT(X08-2490-00)

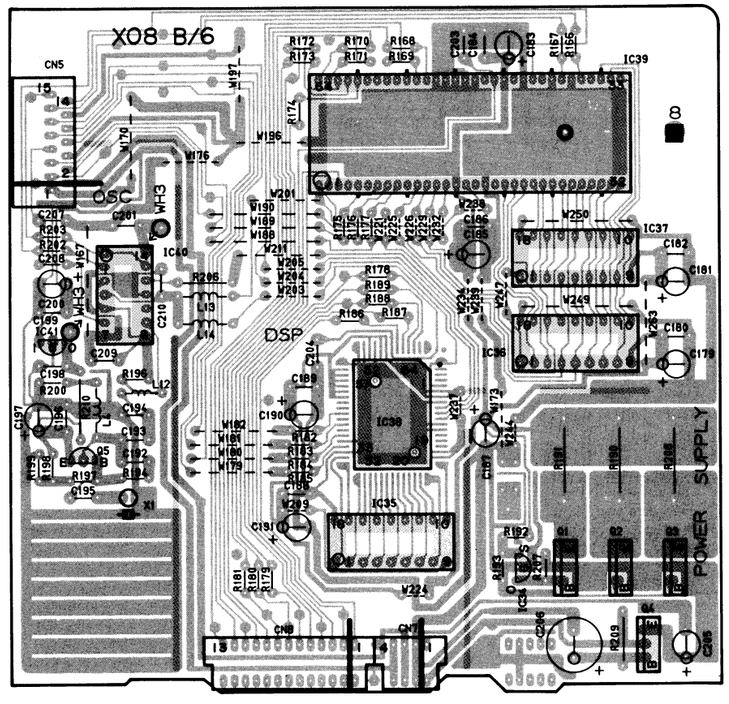








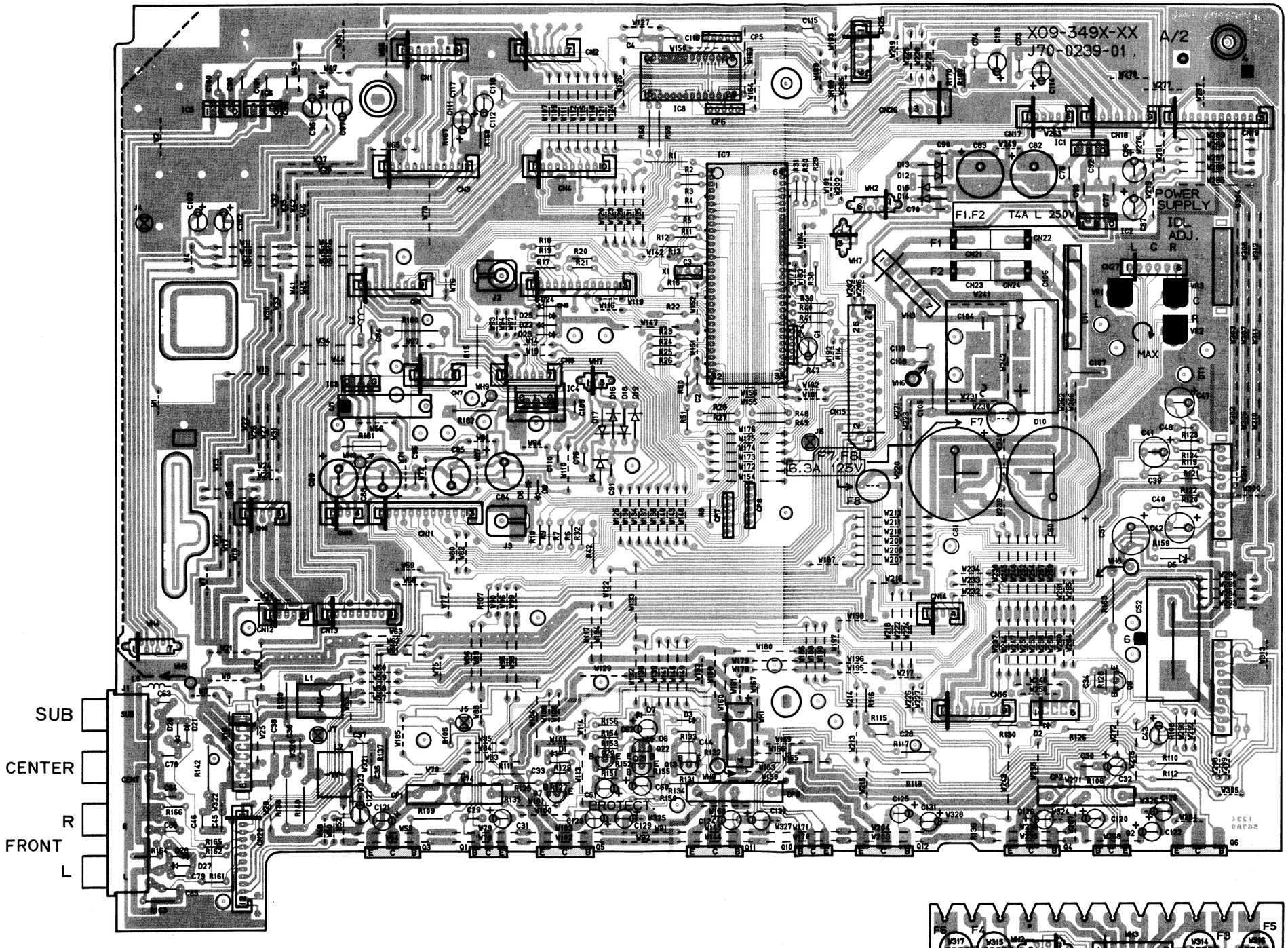




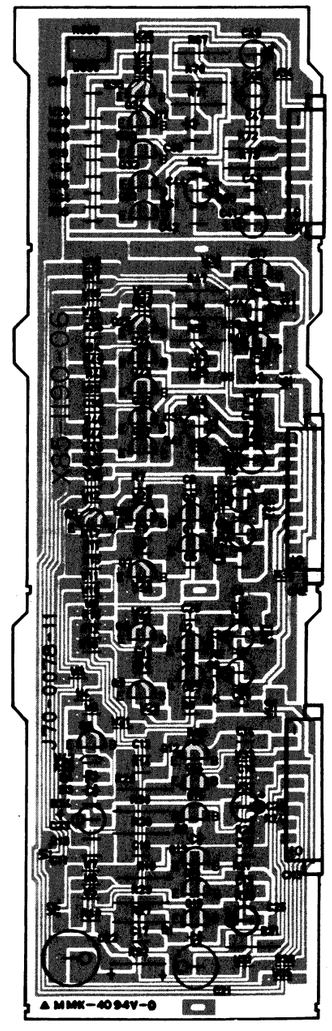
Refer to the schematic diagram for the values of resistors and capacitors.

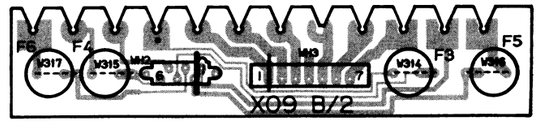
PC BOARD

AUDIO UNIT(X09-349X-XX)



MAIN AMPLIFIERUNIT
(X85-1190-06)





Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD

CONTROL UNIT (X11-319X-XX)

SYSTEM CONTROL

XII C/7

POWER SUPPLY

SENTER SPEAKERS

F1 6.3A 250V

F2 T4A L 250V

F3 T4A L 250V

AC OUTLET AC100V 50/60Hz SWITCHED

XII B/7

MASTER VR

MASTER VOLUME

REAR BUFFER

MUTE

MOTOR CONTROL

XII D/7

PHONES

XII F/7

REC SELECTOR

J70-0175-11

XII-319X-XX A/7

TONE CONTROL

SYSTEM CONTROL

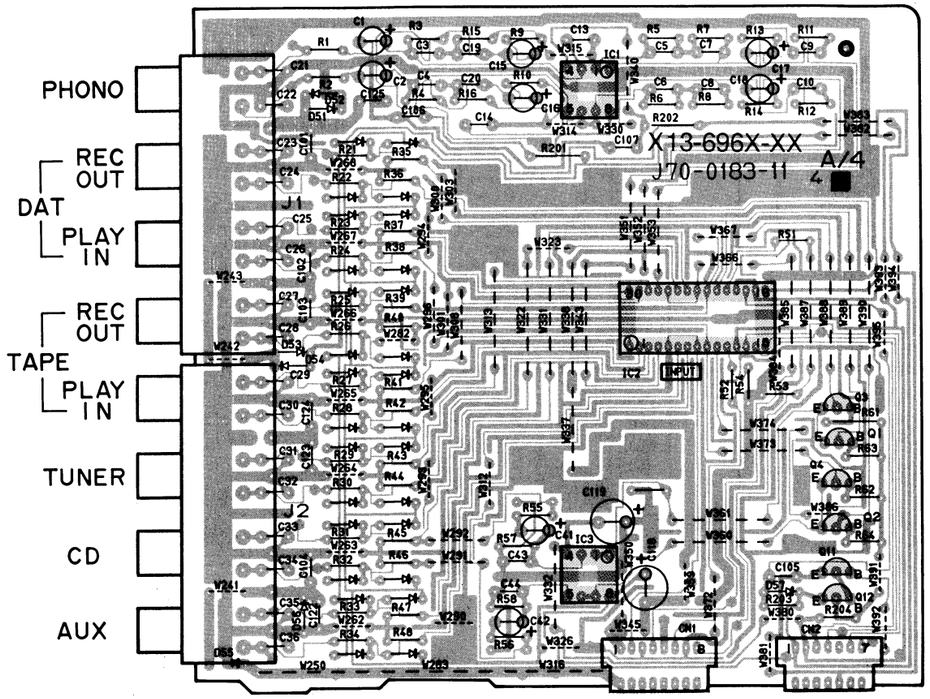
RESET SYSTEM

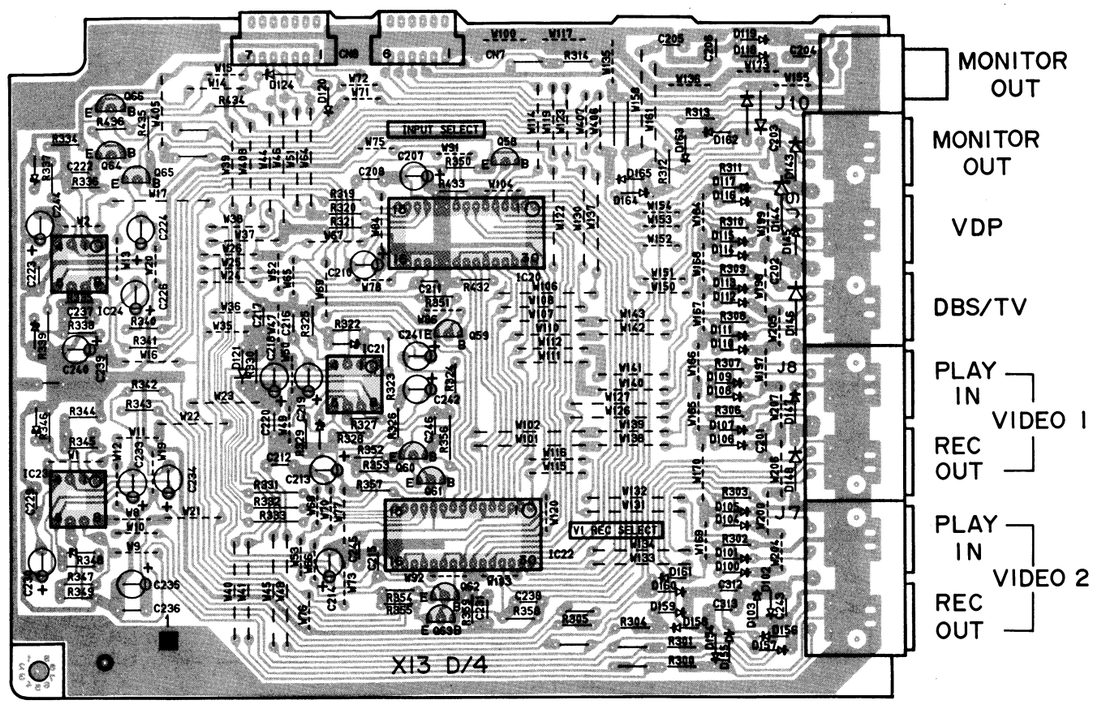
XII E/7

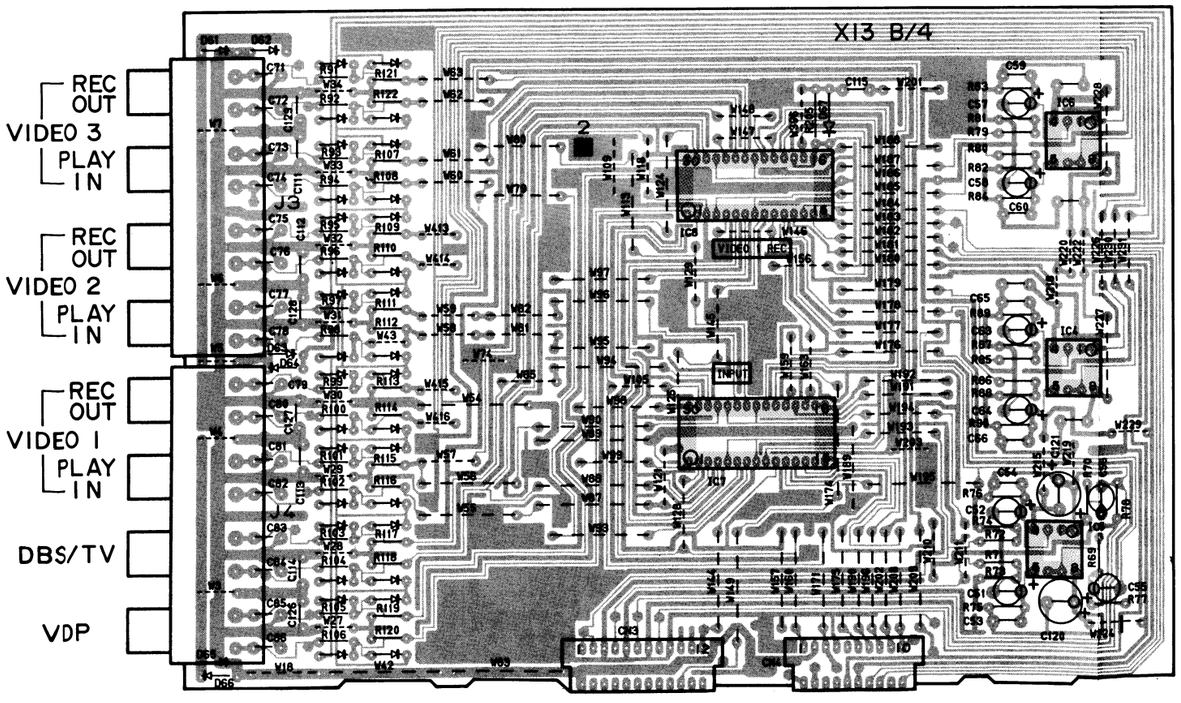
Refer to the schematic diagram for the values of resistors and capacitors.

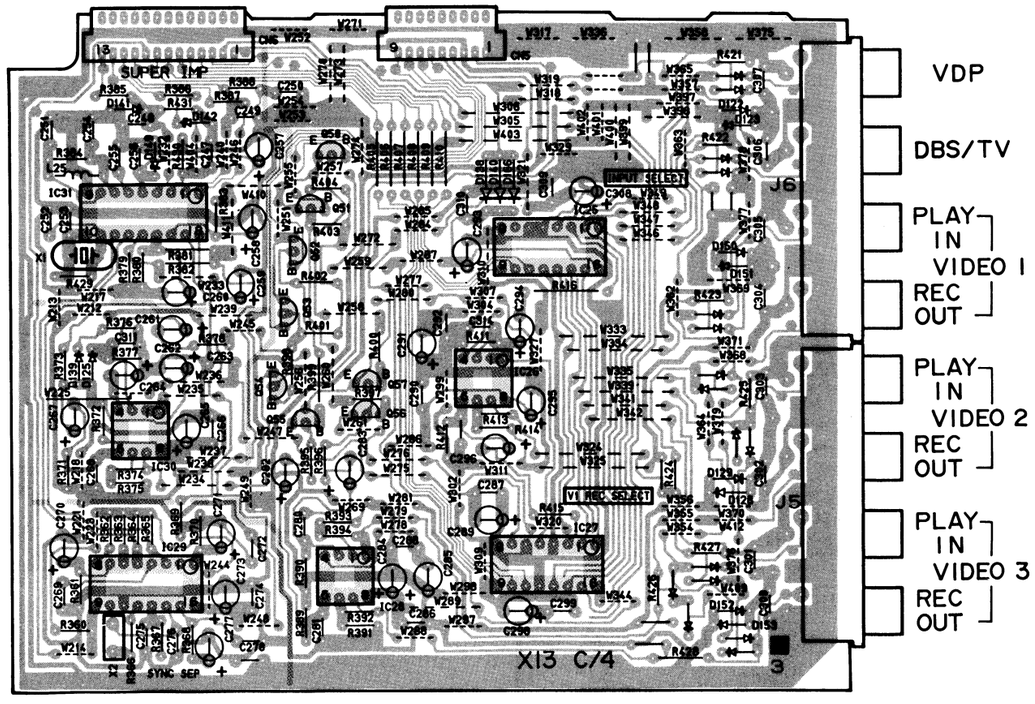
PC BOARD

ACCESSORY UNIT(X13-696X-XX)

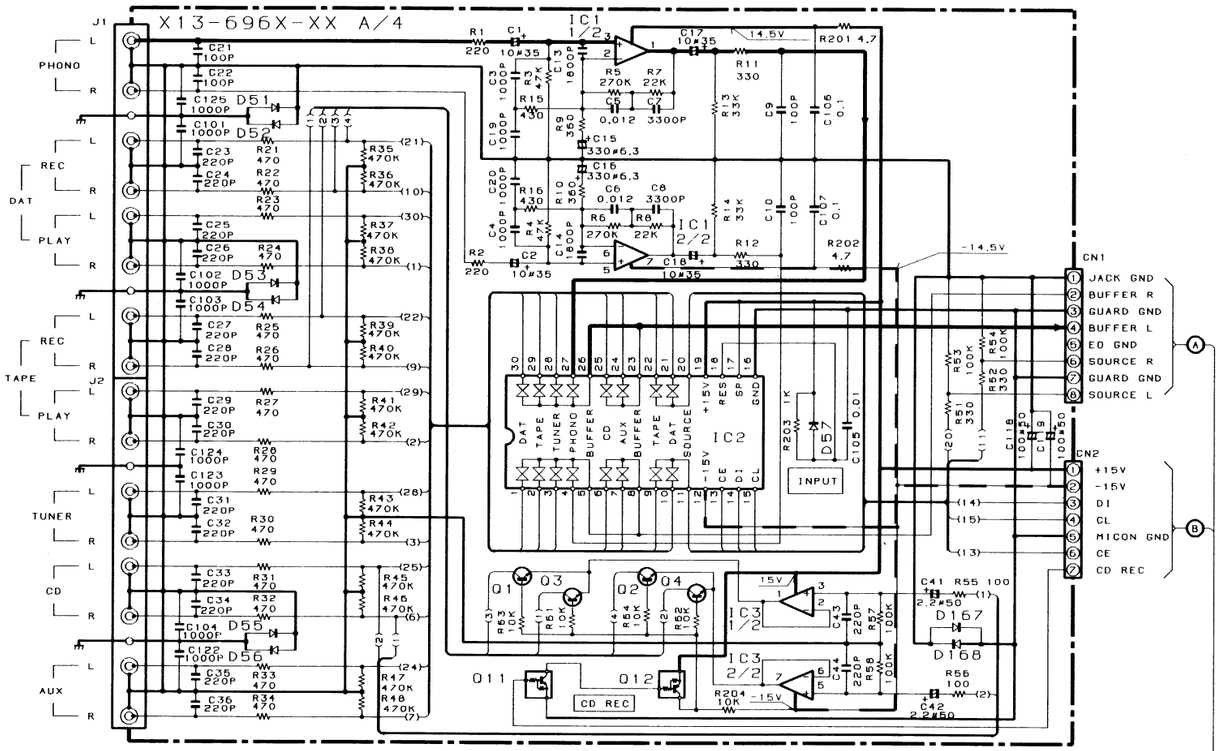


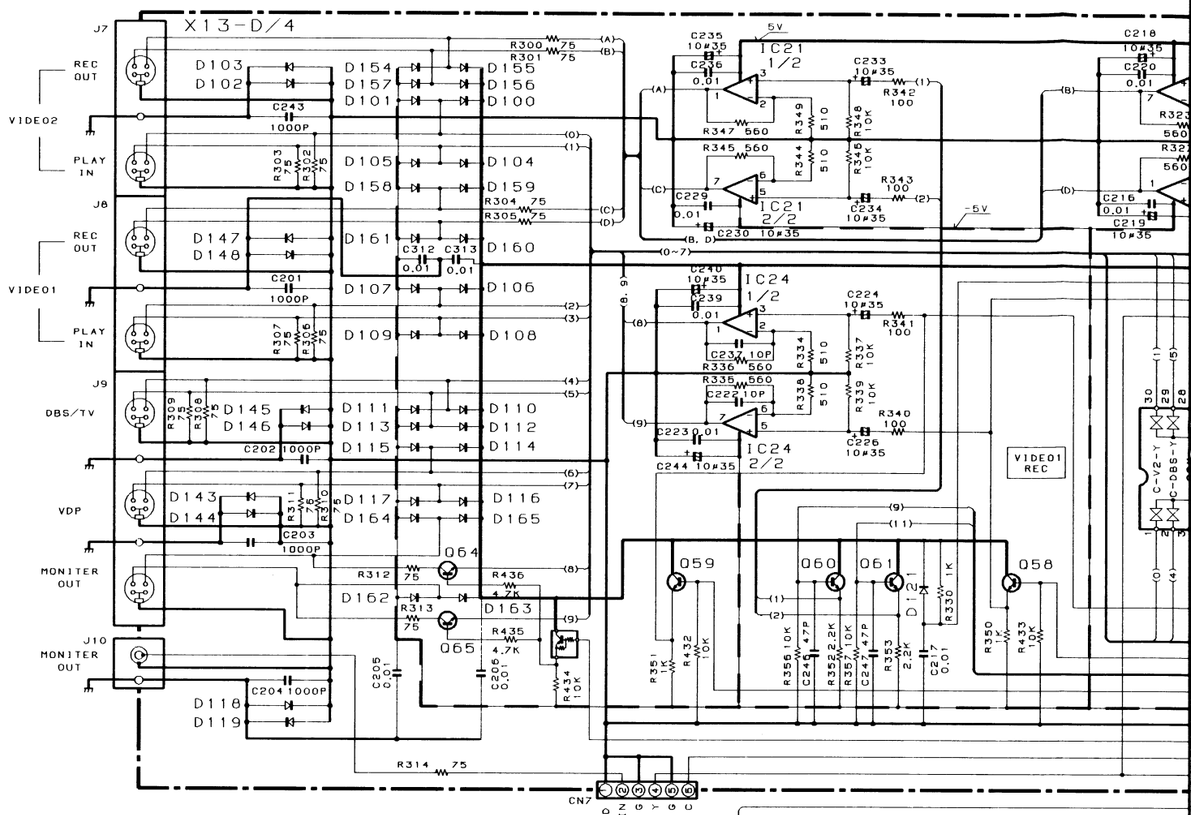


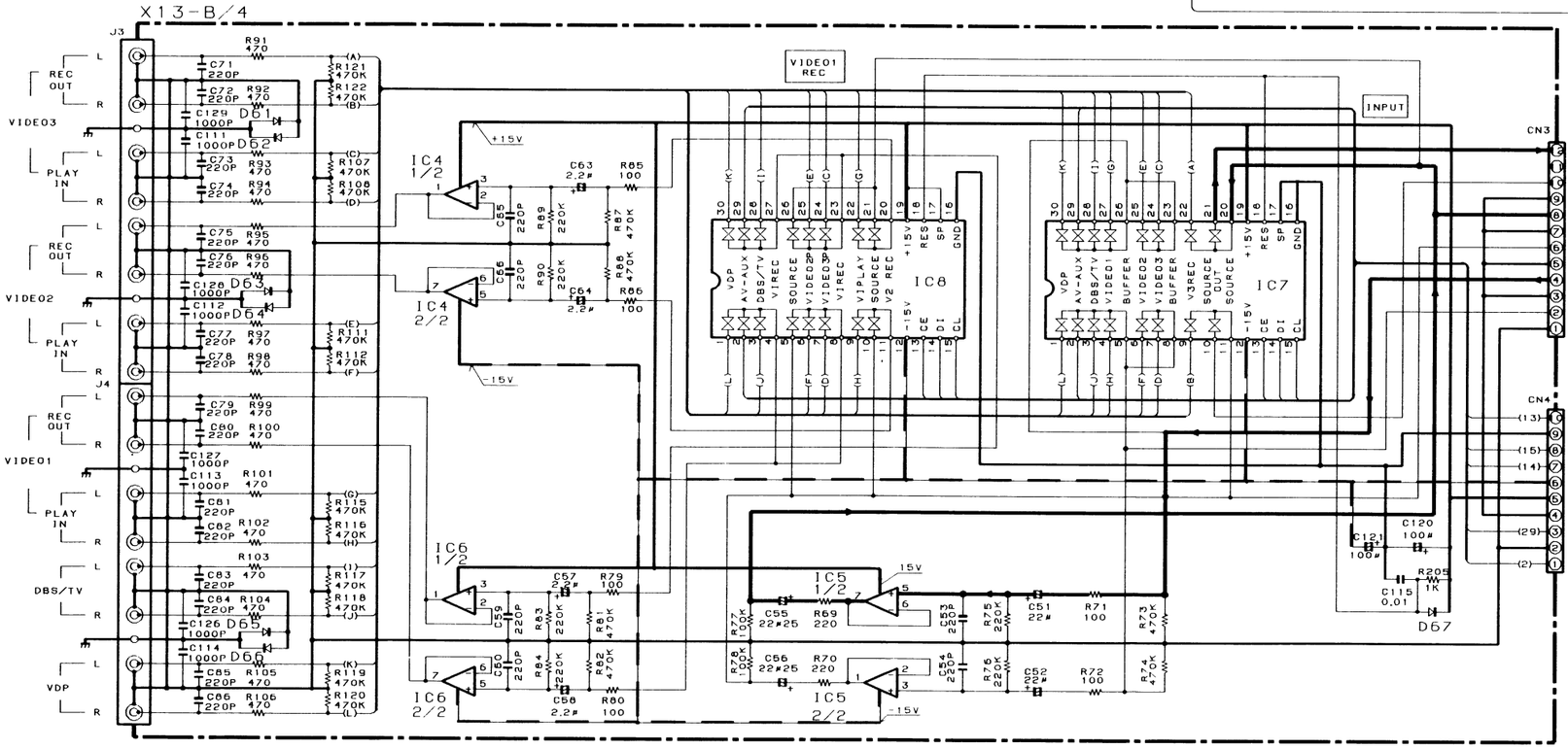


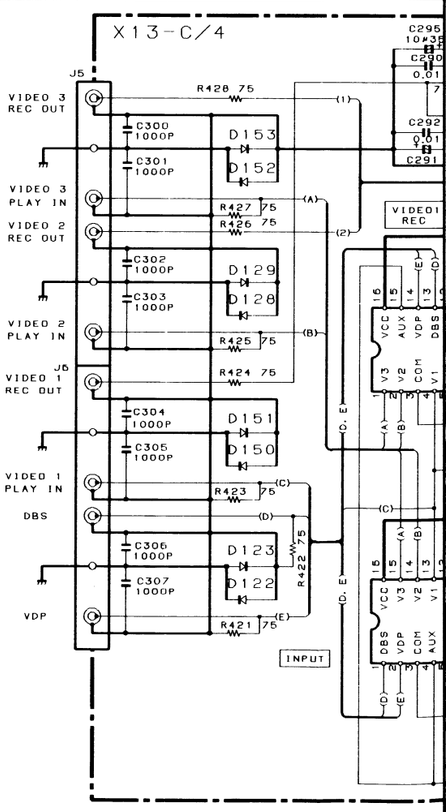


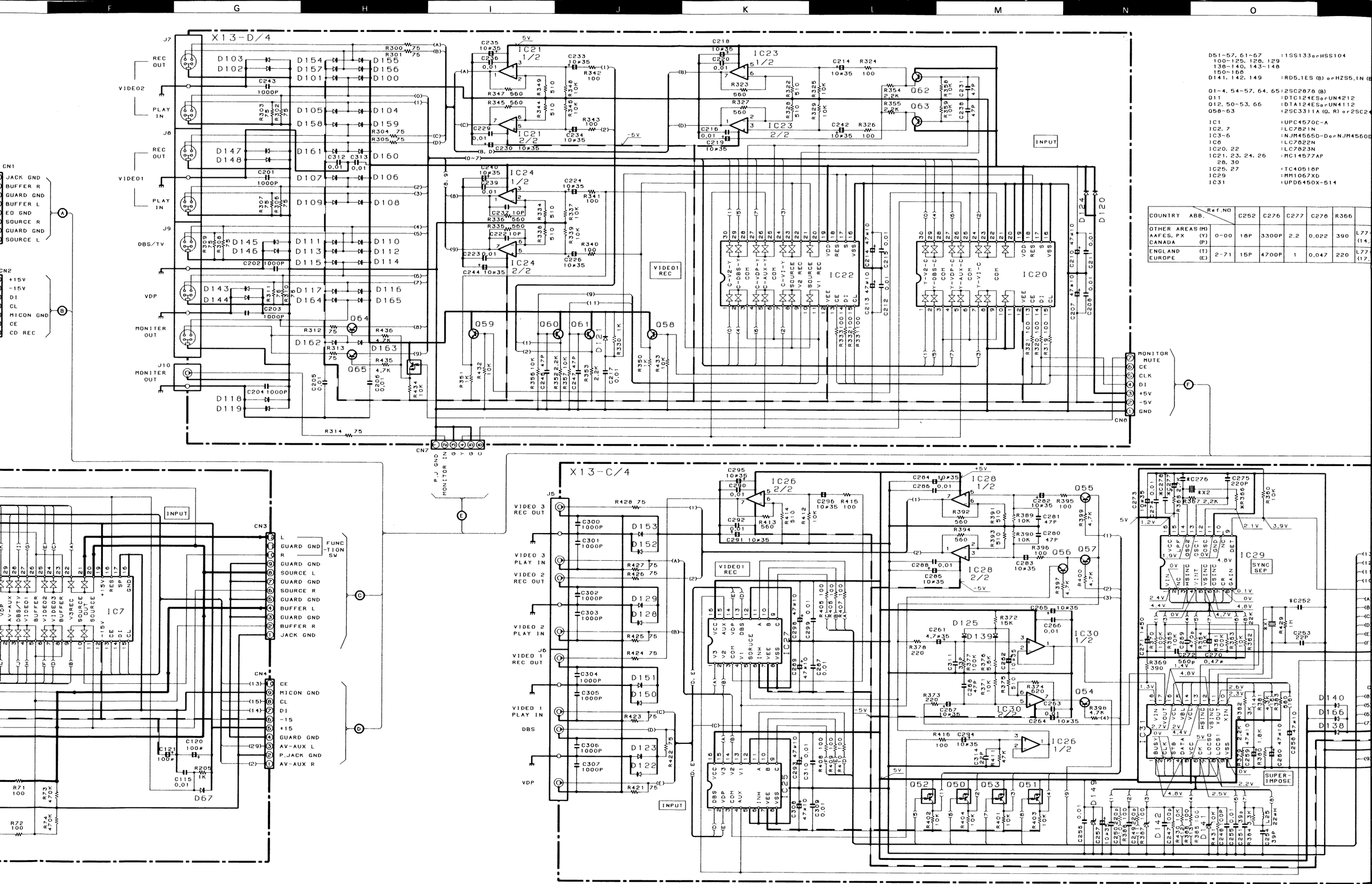
Refer to the schematic diagram for the values of resistors and capacitors.

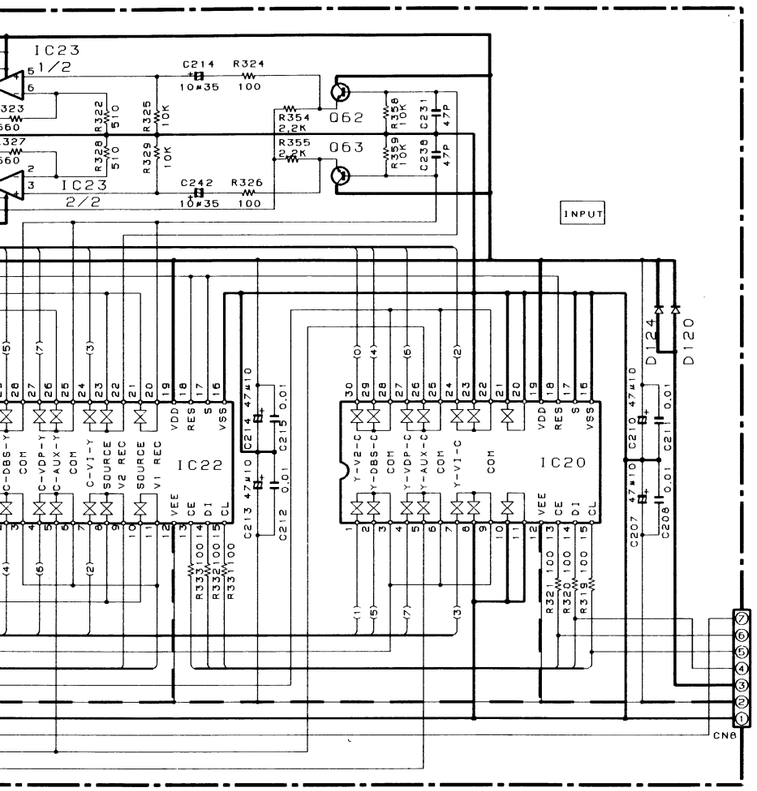

X13-696X-XX A/4
J1
PHONO
DAT
PLAY
REC
TAPE
J2
TUNER
CD
AUX
IC1 1/2
IC1 2/2
IC2
IC3 1/2
IC3 2/2
INPUT
CD REC
CN1
JACK GND
BUFFER R
GUARD GND
BUFFER L
EQ GND
SOURCE R
GUARD GND
SOURCE L
CN2
+15V
-15V
DI
CL
MICON GND
CE
CD REC

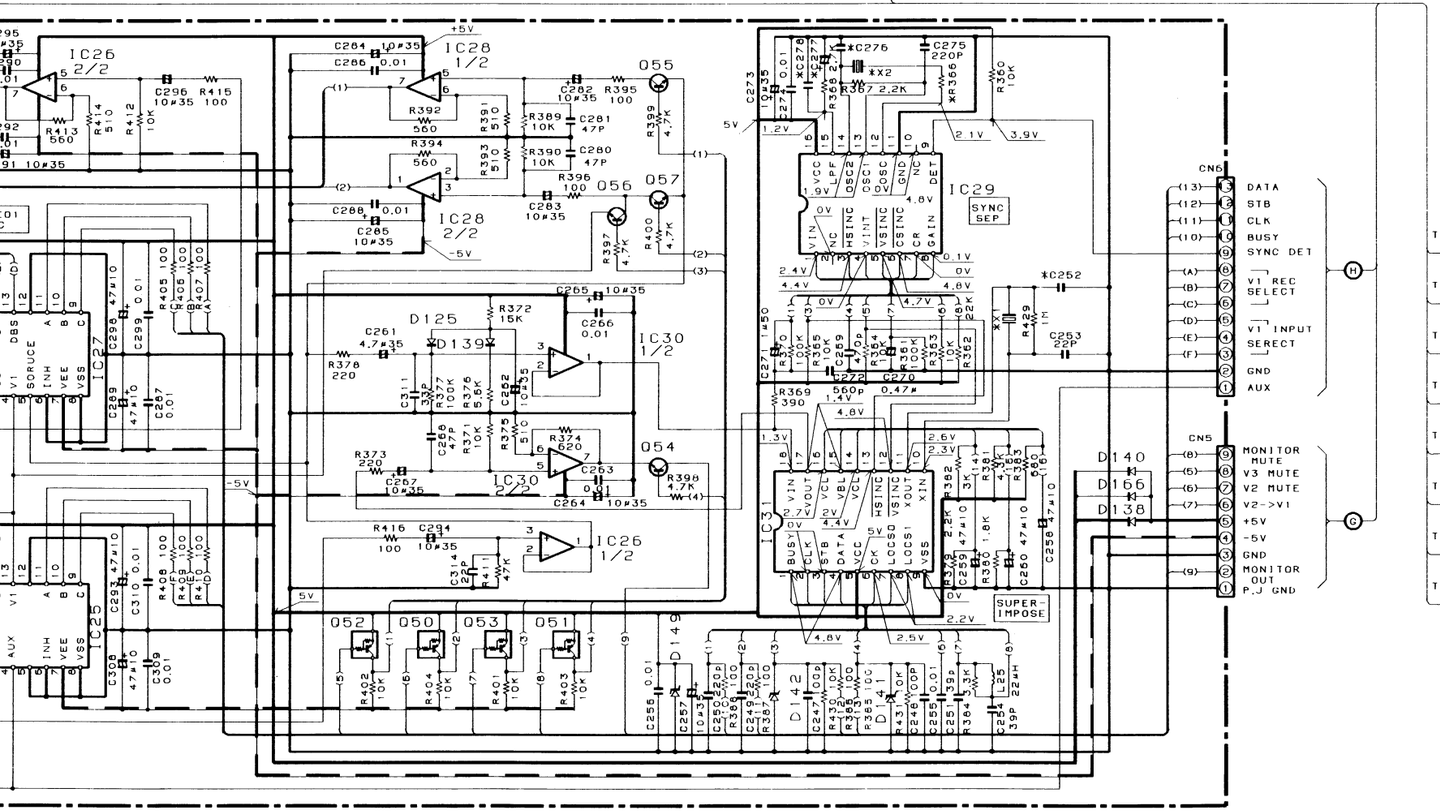

X13-D/4
J7
REC OUT
VIDEO2
PLAY IN
J8
REC OUT
VIDEO1
PLAY IN
J9
DBS/TV
VDP
MONITER OUT
J10
MONITER OUT
IC21 1/2
IC21 2/2
IC24 1/2
IC24 2/2
VIDEO1 REC
CN7
P.J GND
MONITOR IN


X13-B/4
J3
REC OUT
VIDEO3
PLAY IN
REC OUT
VIDEO2
PLAY IN
J4
REC OUT
VIDEO1
PLAY IN
DBS/TV
VDP
IC4 1/2
IC4 2/2
IC6 1/2
IC6 2/2
IC5 1/2
IC5 2/2
IC8
IC7
VIDEO1 REC
INPUT
CN3
L
GUARD GND
R
GUARD GND
SOURCE L
GUARD GND
SOURCE R
GUARD GND
BUFFER L
GUARD GND
BUFFER R
JACK GND
FUNC-TION SW
CN4
CE
MICON GND
CL
DI
-15
+15
GUARD GND
AV-AUX L
P.JACK GND
AV-AUX R


X13-C/4
J5
VIDEO 3 REC OUT
VIDEO 3 PLAY IN
VIDEO 2 REC OUT
VIDEO 2 PLAY IN
J6
VIDEO 1 REC OUT
VIDEO 1 PLAY IN
DBS
VDP
VIDEO1 REC
INPUT


X13-D/4
X13-C/4
INPUT
VIDEO1 REC
VIDEO2
PLAY IN
VIDEO1
DBS/TV
VDP
MONITER OUT
REC OUT
IC21 1/2
IC21 2/2
IC23 1/2
IC23 2/2
IC24 1/2
IC24 2/2
IC22
IC20
IC7
IC25
IC26 2/2
IC27
IC28 1/2
IC28 2/2
IC29 SYNC SEP
IC30 1/2
IC30 2/2
IC31 SUPER-IMPOSE
CN1
CN2
CN3
CN4
CN6
CN7
JACK GND
BUFFER R
GUARD GND
BUFFER L
EO GND
SOURCE R
GUARD GND
SOURCE L
+15V
-15V
DI
CL
MICON GND
CE
CD REC
L
GUARD GND
R
GUARD GND
SOURCE L
GUARD GND
SOURCE R
GUARD GND
BUFFER L
GUARD GND
BUFFER R
JACK GND
FUNC-TION SW
CE
MICON GND
CL
DI
-15
+15
GUARD GND
AV-AUX L
P.JACK GND
AV-AUX R
MONITOR MUTE
CE
CLK
DI
+5V
-5V
GND
P.J GND
MONITOR IN
Z
Y
G
B
R
GND
D51~57, 61~67 :1SS133orHSS104
100~125, 126, 129
138~140, 143~148
150~156
D141, 142, 149 :RD5.1ES (B) orHZS5.1N (B
Q1~4, 54~57, 64, 65:2SC2878 (B)
Q11 :DTC124ESorUN4212
Q12, 50~53, 66 :DTA124ESorUN4112
Q58~63 :2SC3311A (O, R) or2SC2
IC1 :UPC4570C-A
IC2, 7 :LC7821N
IC3~6 :NJM4565D-DorNJM4560D
IC8 :LC7822N
IC20, 22 :LC7823N
IC21, 23, 24, 26, 28, 30 :MC14577AP
IC25, 27 :TC40518P
IC29 :MM1067XD
IC31 :UPD6450X-514
COUNTRY ABB. Ref.NO
OTHER AREAS (M) C252 C276 C277 C278 R366
AAFES, PX (Y) 0~00 18P 3300P 2.2 0.022 390 L77-
CANADA (P) (14.
ENGLAND (T) 2~71 15P 4700P 1 0.047 220 L77-
EUROPE (E) (17.



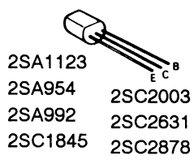


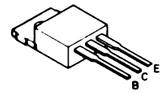
D51~57, 61~67 : 1SS133 or HSS104
100~125, 128, 129
138~140, 143~148
150~166
D141, 142, 149 : RD5.1ES (B) or HZS5.1N (B)

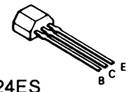
Q1~4, 54~57, 64, 65 : 2SC2878 (B)
Q11 : DTC124ES or UN4212
Q12, 50~53, 66 : DTA124ES or UN4112
Q58~63 : 2SC3311A (Q, R) or 2SC2458 (Y, GR)

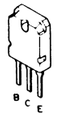
IC1 : UPC4570C-A
IC2, 7 : LC7821N
IC3~6 : NJM4565D-D or NJM4560D-A
IC8 : LC7822N
IC20, 22 : LC7823N
IC21, 23, 24, 26 28, 30 : MC14577AP
IC25, 27 : TC40518P
IC29 : MM1067XD
IC31 : UPD6450X-514

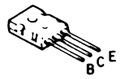
COUNTRY ABB. / Ref.NO		C252	C276	C277	C278	R366	X1	X2
OTHER AREAS (M) AAFES, PX (Y) CANADA (P)	0-00	18P	3300P	2.2	0.022	390	L77-1182-05 (14.318180MHZ)	L78-0272-05 (504KHZ)
ENGLAND (T) EUROPE (E)	2-71	15P	4700P	1	0.047	220	L77-2107-05 (17.734475MHZ)	L78-0300-05 (500KHZ)

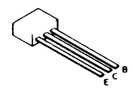


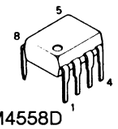


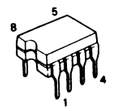


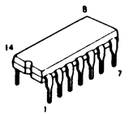


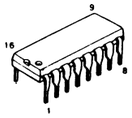


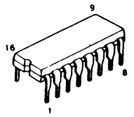


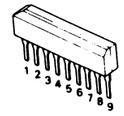


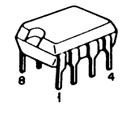


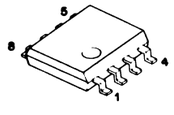


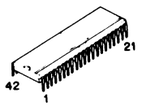


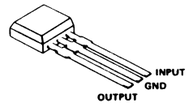


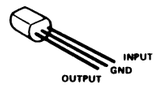


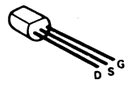


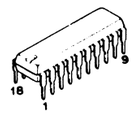


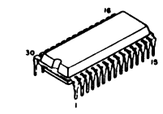


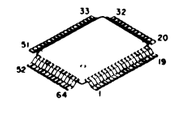


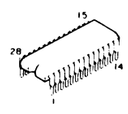


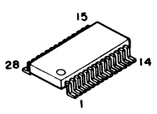


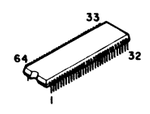




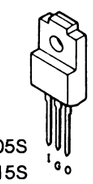








LC83010N



DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

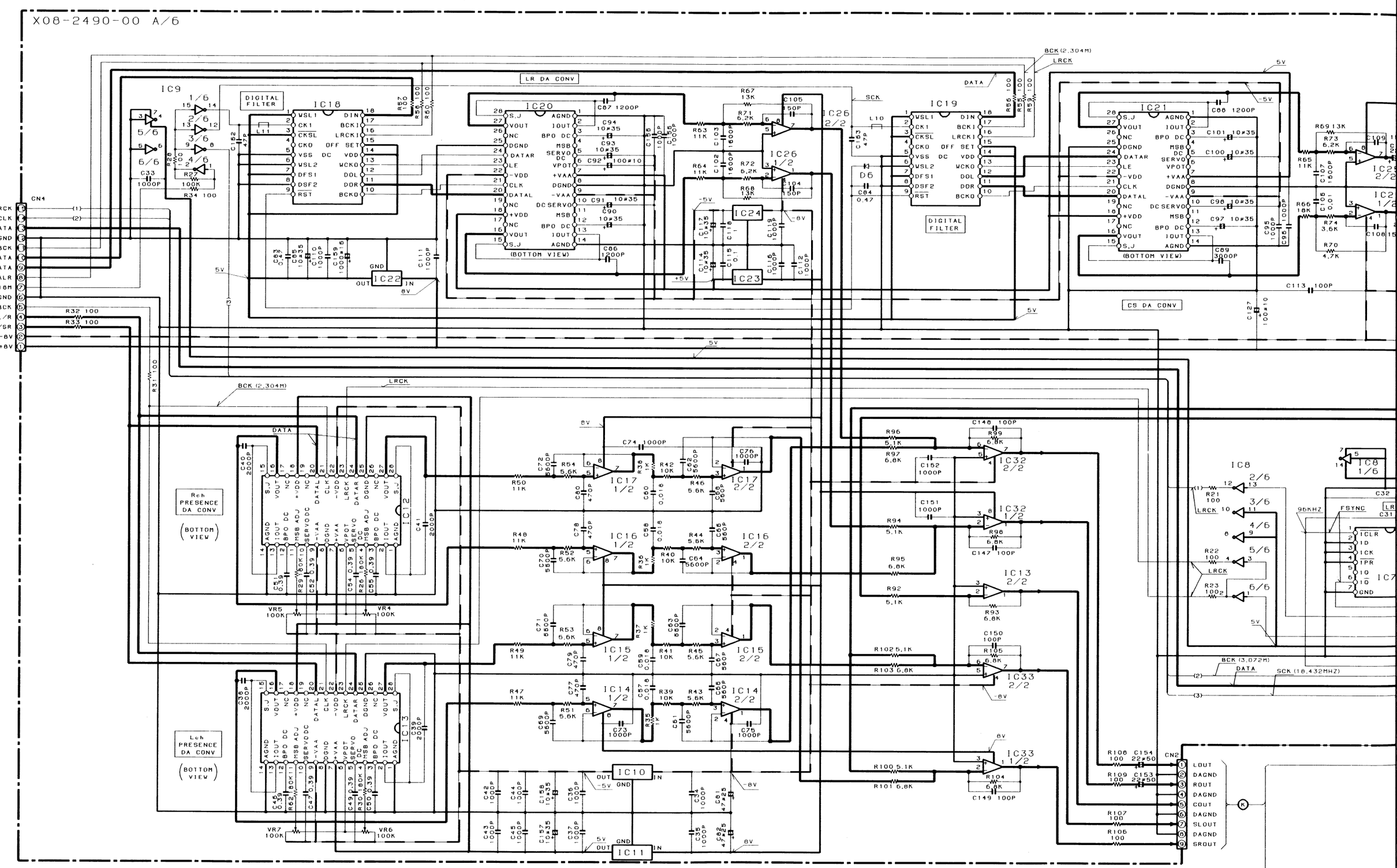
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

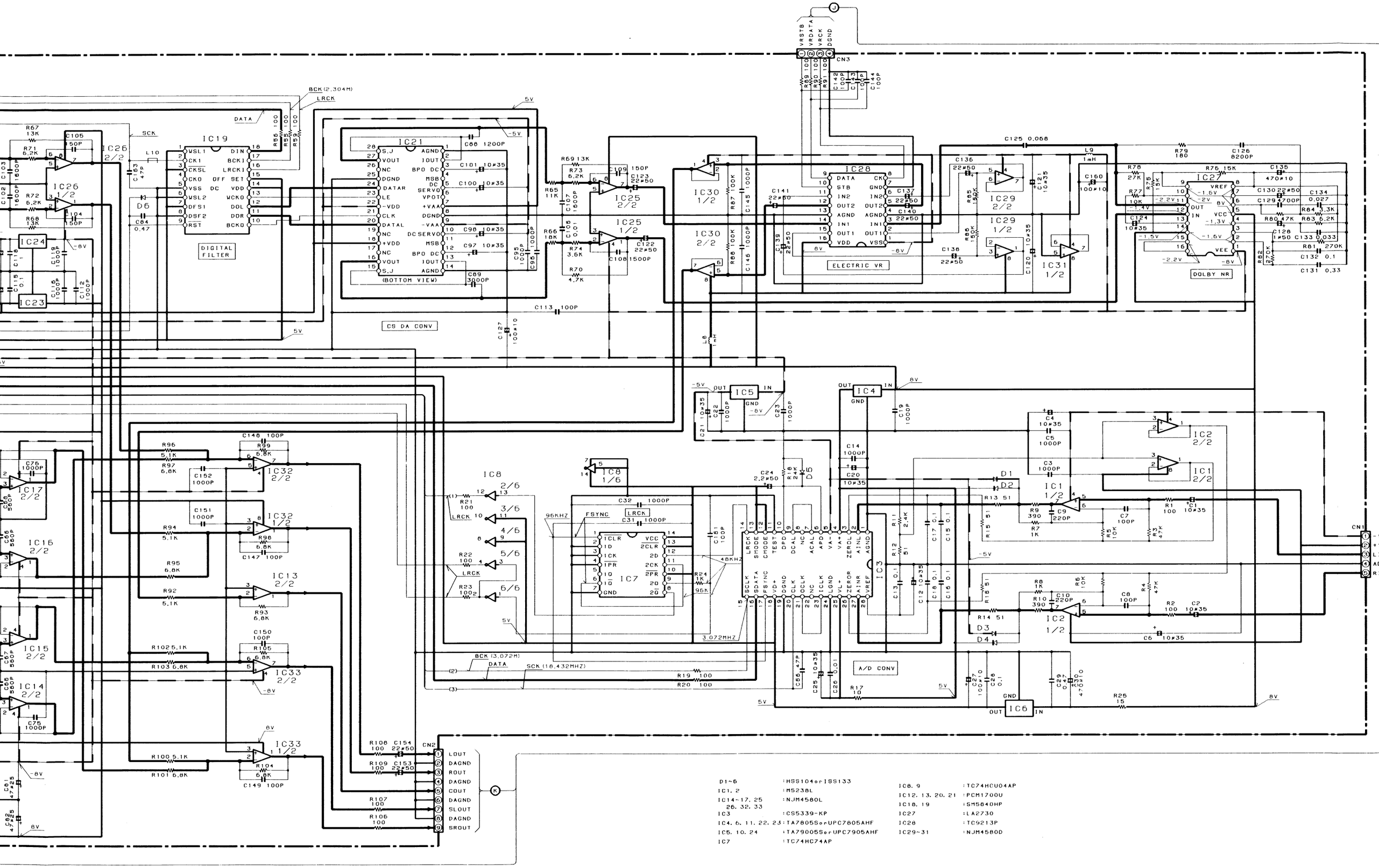
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KA-V8500

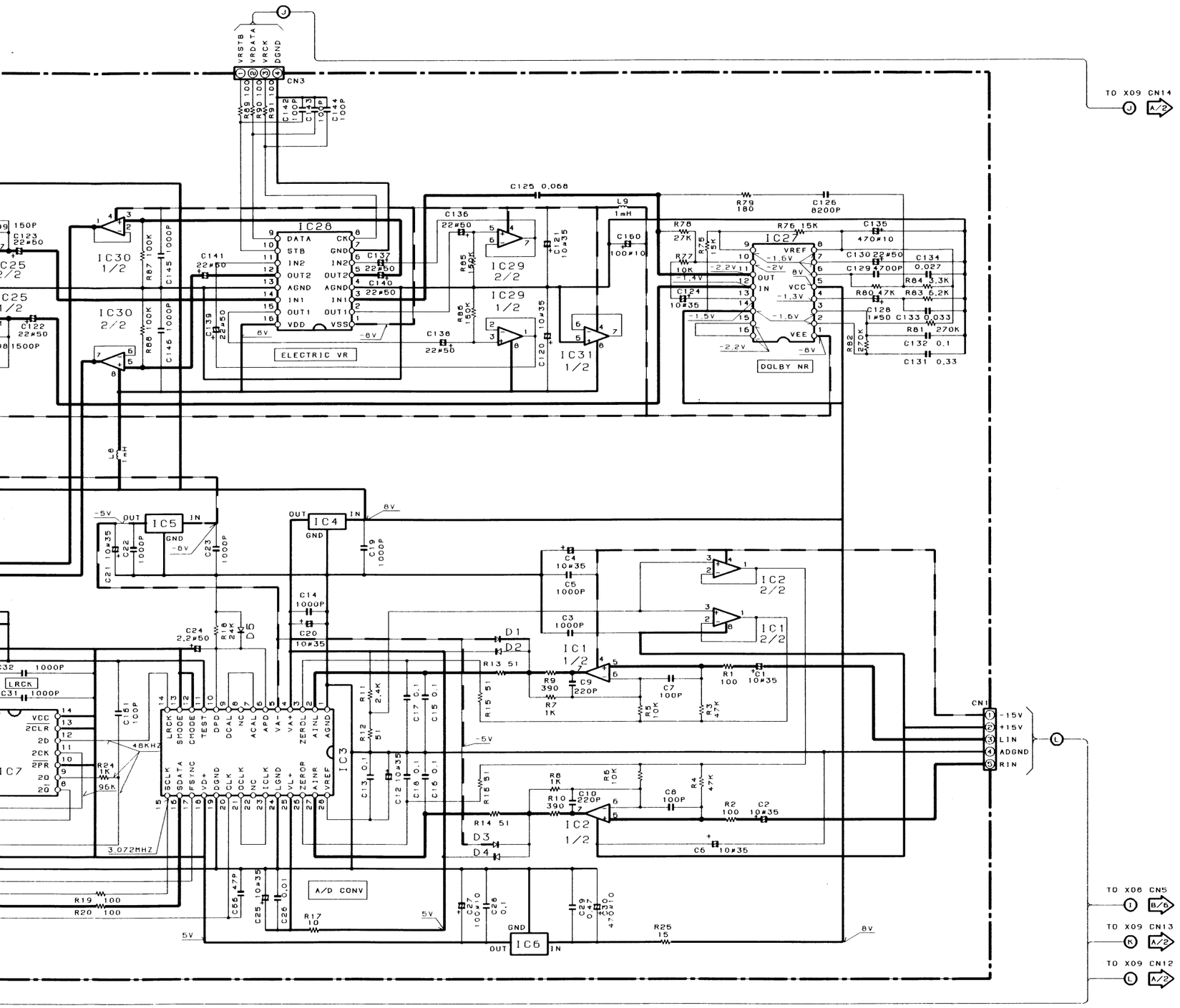
KENWOOD

X08-2490-00 A/6





D1~6	:HSS104orISS133	IC8, 9	:TC74HCU04AP
IC1, 2	:M5238L	IC12, 13, 20, 21	:PCM1700U
IC14~17, 25 26, 32, 33	:NJM4580L	IC18, 19	:SM5840HP
IC3	:CS5339-KP	IC27	:LA2730
IC4, 6, 11, 22, 23	:TA7805SorUPC7805AHF	IC28	:TC9213P
IC5, 10, 24	:TA79005SorUPC7905AHF	IC29~31	:NJM4580D
IC7	:TC74HC74AP		



D1~6 : HSS104 or 1SS133
IC1, 2 : M5238L
IC14~17, 25, 26, 32, 33 : NJM4560L
IC3 : CS5339-KP
IC4, 6, 11, 22, 23 : TA7805S or UPC7805AHF
IC5, 10, 24 : TA7900S or UPC7905AHF
IC7 : TC74HC74AP
IC8, 9 : TC74HCU04AP
IC12, 13, 20, 21 : PCM1700U
IC18, 19 : SM5840HP
IC27 : LA2730
IC28 : TC9213P
IC29~31 : NJM4580D

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X08-2490-00 B/6

IC40 1/6 · IC40 5/6 · IC40 2/6 · IC40 3/6 · IC40 4/6

C201 1000P · C207 10P · C208 100P · C210 47P · C209 47P · C197 47µ25 · C196 0.1 · C193 47P · C194 47P · R200 62 · L14 10µH · R199 20K · R194 47K · R197 47K · R198 39K · X1 18.432MHz · C192 22P · R194 200 · C195 47P · R196 1M · L12 · L13 · L14 · Q5

18.432MHZ · SCK (18.432M) · OSC

2.7V · 2.9V · 1.9V · 5V

R202 100 · R203 100 · R206 100 · R165 100 · R167 100 · R166 100

LRCK (48K) · BCK (3.072H) · DATA · BCK (2.304M) · LRCK · DATA

CN5: LRCK · SCLK · SDATA · ADGND · DBCK · LRDATA · CSDATA · DALR · 16M · DAGND · DFBCK · L/R · SL/SR · -8V · +8V

TO X08 CN4 A/B

IC41 · C200 10µ35 · C199 1000P · C198 1000P · C201 1000P · R210 2.7 1W

C187 470µ10 · C203 330P · C183 10µ25 · C184 1000P

IC34 · R193 2.4K · R192 2.4K · R191 68 2W · R190 68 2W · R208 68 2W · Q1 · Q2 · Q3 · R207 2K · Q4 · C205 47µ25 · C206 470µ16 · R209 220 · 14V · 15V · AVR

IC37 · IC36 · RAM · IC35 · RAM

C182 1000P · C181 10µ50 · C180 1000P · C179 10µ50 · C186 1000P · C191 10µ50

IC39 · DSP

IC38 (BOTTOM VIEW) · C190 10µ50 · C189 1000P · C185 10µ50 · C204 330P · R185 100 · R184 100 · R183 100 · R182 100

DIGITAL PRO LOGIC

CN7: +8V · -8V · RTNGND · +15V

CN8: SPDY · SIAK · SIRQ · SICK · SI · RST · P2 · P1 · PLRST · SEND · CBCI · CDIE · CDIO

IC37 IC36 IC35 RAM RAM

C182 1000P C181 10#50 C180 1000P C179 10#50 C188 1000P C191 10#50

IC39

IC38 (BOTTOM VIEW)

C190 10#50 C189 1000P C185 1000P C165 10#50

R185 100 R184 100 R183 100 R182 100

R177 100 R176 100 R175 100

C204 330P

DIGITAL PRO LOGIC

CN6

CN10 X08 C/6

NC SP C SP C SPGND SP R SPGND SP L SPGND

L5 R273 4.7 1W

J2 *C269 *C268 *C263 *C267 *C270 C1ch C2ch CENTER SPEAKER

D36 D35 VH1 J1 Lch Rch FRONT SPEAKER

CN9

RTNGND +62V HEAD R PHONE L RTNGND SUB OUT L OUT R OUT C OUT SPCMUT SPLRMUT H.PHONEMUT

C251 C252 C253 C255 C256 C257 C258 C259 C260 C262 R251 R252 R253 R254 R255 R256 R257 R258 R259 R260

D39 D40 D37 D38 D21 D20 D19 D18 D17 D16 K3 K2 K1 Q7 Q6 Q8

R268 10K R267 10K R271 10K R270 10K R266 10K R265 10K

X08 E/6

CN12 CAP.G R +B -B L -B +B

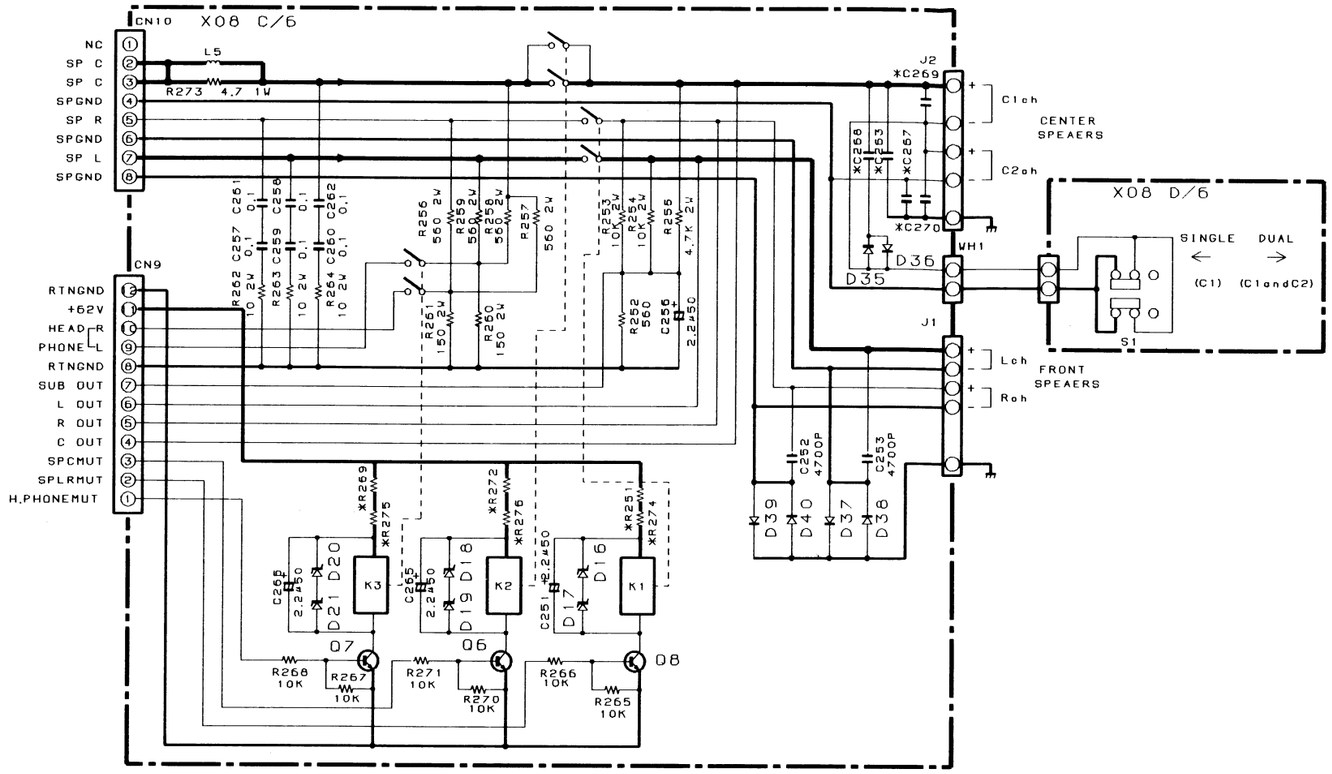
63.2mV CN11 SL A CLASS G SR GARD G -B +B RELAY CONT. PROTECT.

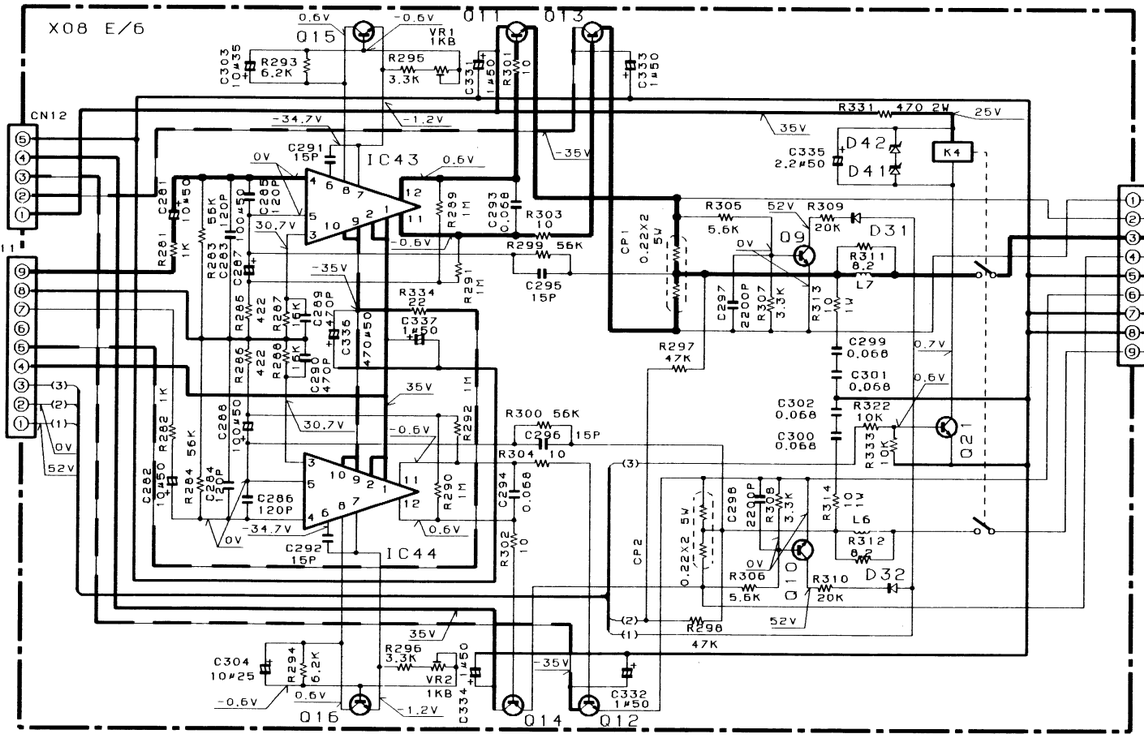
IC43 IC44

VR1 1KB VR2 1KB

D42 D41 K4 D31 D32

Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16





D1~6, 35~40 43~48	:HSS104 or 1SS133
D16, 18, 20, 41	:RD11ES (B2) or HZS11N (B2)
D17, 19, 21, 42	:RD13ES (B2) or HZS13N (B2)
D31, 32	:HSS104A or 1SS131
Q1~4	:2SD2061 or 2SD1266
Q5	:2SK152 (3, 4)
Q6~8, 21	:2SC2003 (L, K)
Q9, 10	:2SC1845 (F, E)
Q11, 12	:2SC4466LC
Q13, 14	:2SA1693LC
Q15, 16	:2SC4137
IC34	:TL431CLP or UPC1093J
IC35~37	:LM33464G-12 or MT4067-10
IC38	:SM5851AF
IC39	:LC83010N
IC40	:TC74HCU04AP
IC41	:TA78L005AP or UPC78L05J
IC43, 44	:#PC1270H

Ref.No \ COUNTRY (ABB)	OTHER AREASS (M) AAFES,PX (Y) CANADA (P)	ENGLAND (T) EURPPE (E)
R251, 269, 272 274~276	470 2W	390 2W
C263, 267, 268	0.01	×
C269, 270	×	0.01

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09-349X-XX
A/2

X85-1190-06

SUB μ-COM.

D1, 2, 3, 6 : 1SS131 or HS81104A
D4, 12~19 : S5688
D5 : RD15JS (B) or HZ8.15B (B)
D7 : RD4.7ES (B) or HZ54.7N (B)
D8, 9, 20~27 : 1SS133 or HS81104
Q1, 2, 10 : 2SC4137 F19 (V, W)
Q3, 4, 11 : 2SD2222*5
Q5, 6, 12 : 2SB1470*5
Q7, 8, 13 : 2SC1846 (F, E)
21, 22 : 2SA992 (F, E)
IC1, 5 : TA7815S or μPC7815AHF

X85-1190-06

CN1 CN2 CN3 CN5 CN6 CN12 CN15 CN16 CN17 CN18 CN19 CN25

CENTER IN GND NF IN GND IN NF +15V FIRST OFF/PROTECT CN2

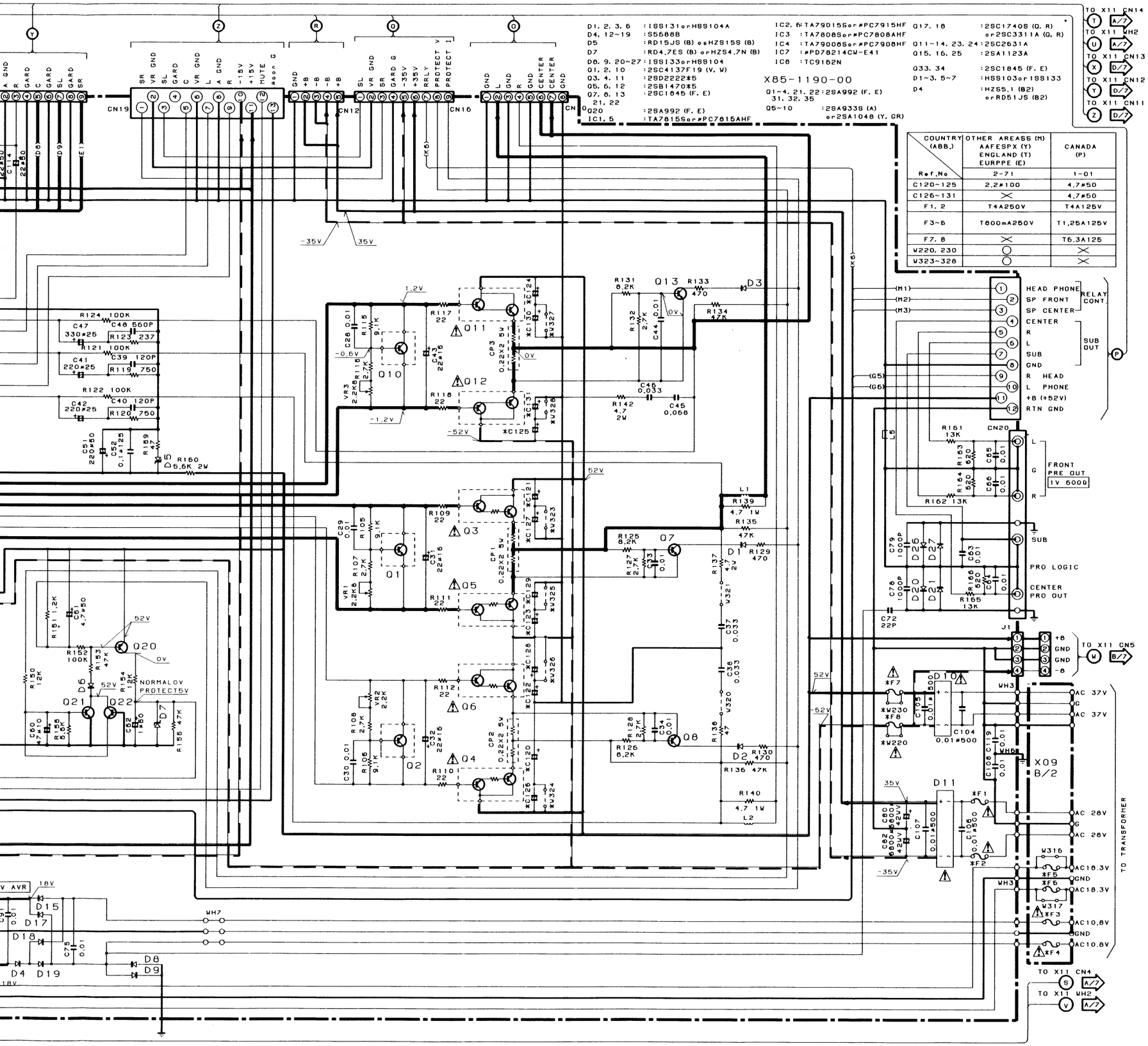
OUT (+) R OUT (-) OUT (-) L OUT (+) OUT (-) CENTER OUT (+) GND +B -B

NORMAL 0V PROTECT 5V

15V AVR 8V AVR 30V 18V

BYPASS SWITCH

BT BS BR BQ BP BO BN BM BL BK BJ BH BG BF BE BD BC BB BA AZ AY AX AW AV AU AT AS AR AQ AP AO AN AM AL AK AJ AH AG AF AE AD AC AB AA Z Y X W V U T S R Q P O N M L K J H G F E D C B A



COUNTRY (ABB.) / Ref.No	OTHER AREASS (M) AAFESPX (Y) ENGLAND (T) EURPPE (E)	CANADA (P)
	2-71	1-01
C120~125	2.2*100	4.7*50
C126~131	×	4.7*50
F1, 2	T4A250V	T4A125V
F3~5	T800mA250V	T1.25A125V
F7, 8	×	T6.3A125
W220, 230	○	×
W323~328	○	×

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KA-V8500

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X11-319X-XX A/7

ED1

p SPEAKERS	m MOVIE 1	n MOVIE 2	o MOVIE 3	p ARENA	p OPERA	p CATHEDRAL
f FRONT	k JASS CLUB	l STADIUM		o NORMAL	o WIDE	o PHANOM
c L d R e C	j CINEMA SCREEN					
b REAR						
a L	a R g 1 h 2 i 3					ms dB p o

10G 9G 8G 7G 6G 5G 4G 3G 2G 1G

TO X09 CN15 (A/2) (S)
TO X09 WH4 (A/2) (V)
TO X09 CN26 (A/2) (T)
TO X09 CN25 (A/2) (U)
TO X09 CN5 (A/2) (W)
TO X09 CN17 (A/2) (X)
TO X09 CN18 (A/2) (Y)
TO X09 CN19 (A/2) (Z)

R103 4.7K — S7 — V1 REC OUT — D23 D22 D21 D20 D18 D19
AUTO INJECTION S3 D24 — S0 (4)
SOURCE DIRECT S1 D26 — S1 (3)
SPEAKER ON/OFF S4 D25 — S2 (2)
CD REC S2 D27 — S3 (1)
*D17 — S4 (5) S5 (6) S6 (7)
R102 4.7K
REMOTO SENSER — 5V — VCC — A1 — OUT — GND — C54 100/10 — C53 0.01 — R101 100K — D68 — D69
D66 — R104 47K

INPUT — R100 47K — S8 — R97 100K R98 100K R99 47K — C56 0.022 (11) (12)
MODE — S9 — R93 100K R94 100K R95 47K R96 47K — C58 0.022 (13) (14) — R157 47K
PRESENCE — S10 — R65 100K R64 100K R66 47K R67 47K — C60 0.022 (15) C61 0.022 (16)
R68 47K

IC6 EPROM — 1 CS, 2 SCK, 3 DI, 4 DO, 5 VSS, 6 RESET, 7 RDY, 8 VDD
C62 0.01 — C63 100/10 — R74 2K — R73 220 — D50 — Q18 — R77 5.1K — R76 1K — 5V
R75 4.7K — C64 0.47 — D49 — R78 4.7K — Q13
CH MODE S5 S6 S7 POWER (6) (7) (8)
D33 D34 D47 D31 D32 D48 D35 D36 — R81 330 R79 100K — R83 100K — R84 100K — R82 330 — R111 47K
D64 D30

MAIN μ-COM — *IC4

1	S3	VDD 64	5V
2	S2	S4 63	(e)
3	S1	S5 62	(f)
4	S0	S6 61	(p)
5	KR0	60	(o)
6	SCKMTD	59	(n)
7	DTMTD	58	(m)
8	CE	VPRE 57	
9	REMOCON	VLOAD 56	
10	KR1	55	(j)
11	INPUT	54	(k)
12		53	(j)
13		52	(i)
14	MODE	51	(h)
15		50	(g)
16	PRESENCE	G10 49	
17	EEPDI	48	(G9)
18	TRED	47	(G8)
19	EEPCLK	46	(G7)
20	EEPDO	45	(G6)
21	DETSY	44	(G5)
22	TREADY	43	(G4)
23	SIRIAL	42	(G3)
24	SBUSY	41	(G2)
25	SDATA	40	(G1)
26	CH MODE		
27	POWER	39	R117 100
28	PROT	RESET 38	
29	IMPOSE BUSY	I/O STB 37	(P53) R116 100
30	SRST	TSTART 36	(P52) R115 100
31	OSC	IMPCS 35	(P51) R114 100
32	VSS	EEPCS 34	R113 100
		33	R110 47K

R137 100 (1) (d) — R138 100 (2) (a) — R139 100 (3) (b) — R140 100 (4) (c)
R156 100 — R146 100 (P01) — R145 100 (P02) — R130 100 — R131 100 — R132 100 — R133 100 (11) — R134 100 (12) — R129 100 (13) — R128 100 (14) — R123 100 (15) — R124 100 (16) — R118 100 — R143 100 (P31) — R119 100 (P32) — R120 100 (P33) — R141 100 (P34) — R142 100 (P35) — R121 100 — R122 100 — R127 100 (P40) — R126 100 (P41) (P42)
R159 47K R112 47K R162 47K R160 47K R158 47K
X1 4.19 MHz
R135 100 (5) — R136 100 (6) — R161 100 (7)
CP1 100KXZ — D67 — R105 22K — D45 — D46
C50 0.01 — C51 1#35 — R106 10 — C52 0.047#50
C93 0047 — R109 68K — D28 — R108 100K — Q14 — Q15
R70 750 — Q16 — R69 330 — R71 47K — R72 4.7K — D56 — POWER

D60 R85 390 SORROUND
D59 R86 390 3 STEREO
D58 R87 390 DSP
D57 R88 390 DSP LOGIC
D54 R89 390 AUDIO INJECTION
D53 R90 390 CD REC
D52 R91 390 SOUREC DIRECT
D55 R92 390 SPEAKERS
IC5 I/O PORT — P3 VDD 14, P4 P2 13, P5 P1 12, VSS CLR 11, P6 STB 10 (P53), P7 CLK 9 (P32), P8 DATA 8 (P33)
C19 1000P — C58 0.01 — C59 0.01 — R168 1K

WH17 — C GND Y GND COMPOSITE +5.6V -5V — WH16 — CN4
R HEAD PHONE — L GND
C GND Y GND COMPOSITE +5.6V -5V AV AUX
+5V #-COM G FOR SUB μ-COM
(P41) BUSY (P33) DI (P32) CLK (P34) DETSY (P51) IMPCS S IMPOSE
(P01) SCKMTD (P02) DTMTD (P35) TREADY (P31) TRED (P42) SRST (P52) TSTART (P40) PROTECT STANBY LED
-15V +15V FOR TONE
TO X09 CN15

INPUT SEL +24V GND -24V — SUB μ-COM POWER +5.6V GND -5V — VIDEO — CN2
FL AC AC -32V — RESET +9.1V — μ-COM +5.6V GND DATA BUSY — CN1

TONE
R54 1.8K — C86 22#50 — R62 390 — C34 22#50 — R46 1.5K — C28 1#50 — R48 1.5K — C30 1#50 — C42 120P — C46 1000P — R42 10K
TREBLE C37 0.047 — BASS R52 390 — VR3 5KB 1/2 — R50 390 — R56 1.8K — R58 3.3K — R59 3.3K — C47 1000P — R43 10K
R165 22K — C44 560P — C45 560P — R157 22K — C45 560P — C35 0.047 — C33 22#50 — R53 390 — C31 1#50 — C43 120P — C41 120P
VR2 5KB 1/2 — R51 390 — R55 1.8K — C55 22#50 — R49 1.5K — C29 1#50 — R47 1.5K
C38 0.047 — C89 22#50 — R61 390
IC7 1/2 — IC7 2/2 — 15V — -15V — L1 1#H — L2 1#H

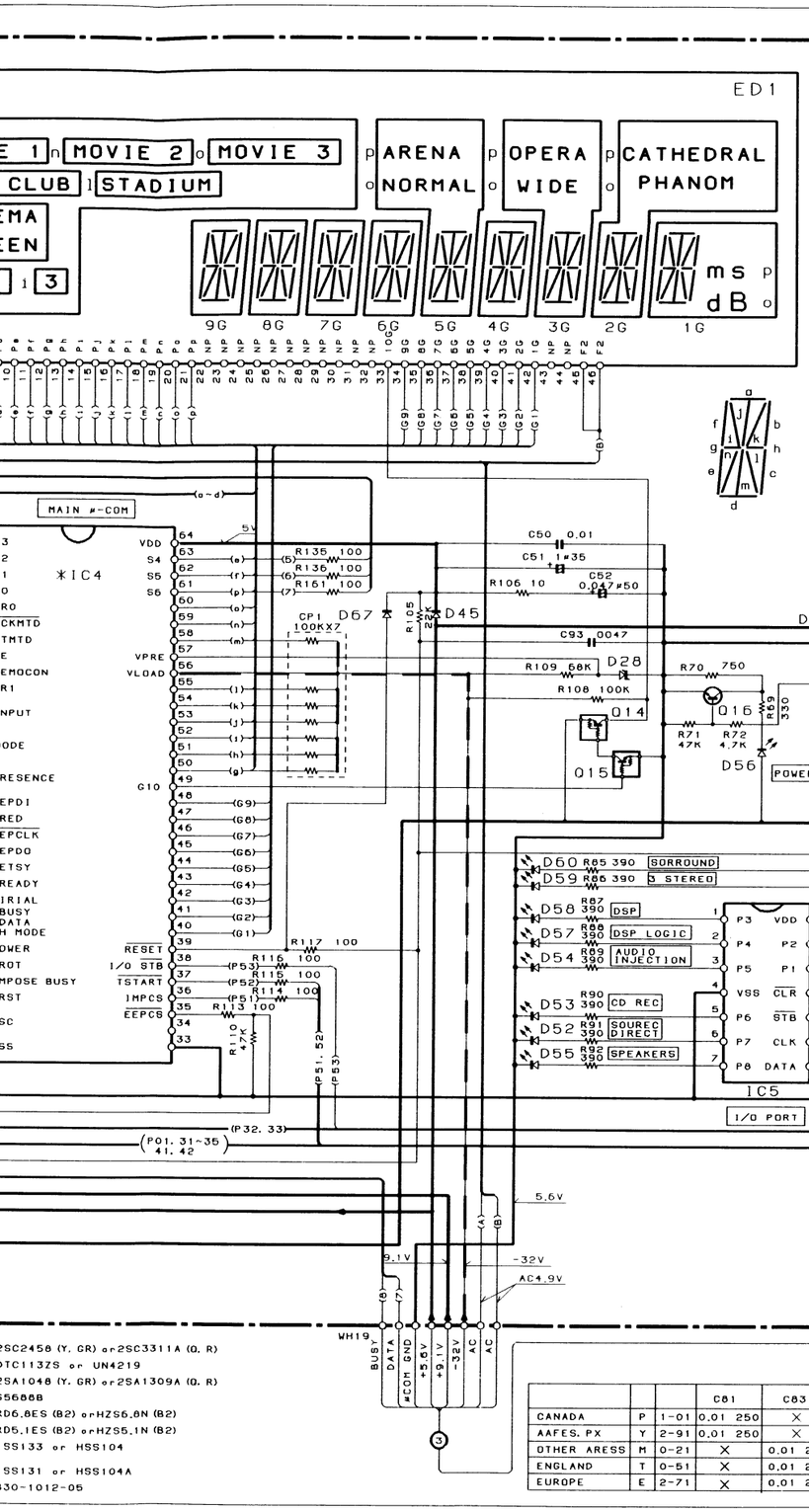
9.1V — -32V — AC4.9V — 5.6V
WH19 — BUSY DATA #COM GND +5.6V +9.1V -32V AC AC

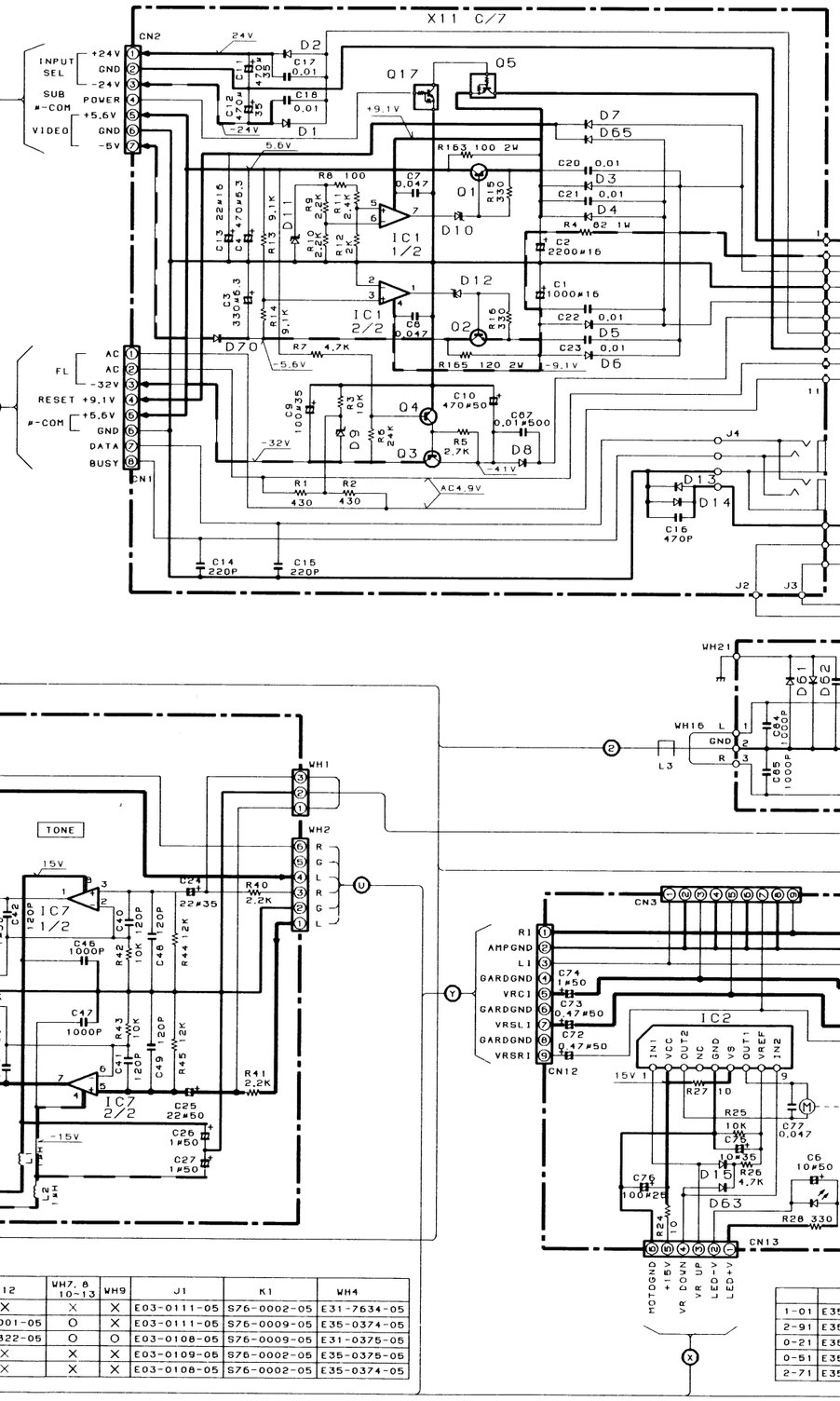
IC1 :NJM4558D
IC2 :TA8409S
IC3. 7 :NJM4565D-D or NJM4560D-A
IC4 :#PD75216ACW-C60 or C89
IC5 :NJU3711D
IC6 :M6M80041P

Q1. 3 :2SB1370 (E. F. G)
Q2 :2SD2061 (E. F, G)
Q4 :2SA954 (L. K)
Q5. 14 :DTA113ZS or UN4119
Q6~10 :2SC2878 (B)
Q11 :DTA124ES or UN4112
Q12. 15 :DTC124ES or UN4212

Q13. 16 :2SC2458 (Y. GR) or2SC3311A (O. R)
Q17 :DTC113ZS or UN4219
Q18 :2SA1048 (Y. GR) or2SA1309A (O. R)
D1~8. 66. 70 :S56888
D9 :RD6.8ES (B2) orHZS6.8N (B2)
D10. 12. 28. 50 :RD5.1ES (B2) orHZS5.1N (B2)
D13~27. 29~49 61~64. 66~69 :1SS133 or HSS104
D51 :1SS131 or HSS104A
D52~60 :B30-1012-05

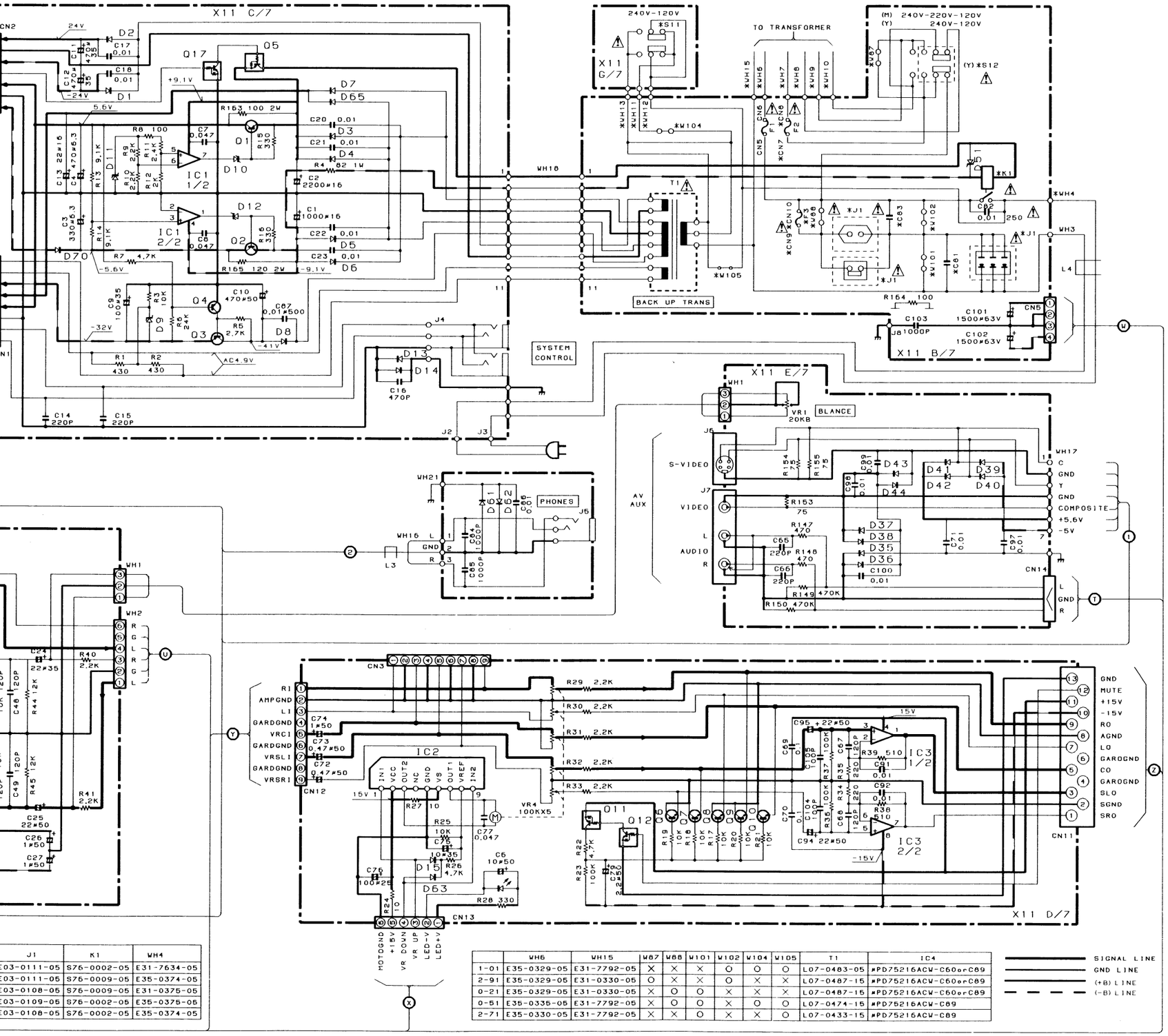
			C81	C83	D17	F1	F2	F3	CN7. 8	CN9. 10	S11	S12	WH7. 8 10~13	WH9	
CANADA	P	1-01	0.01 250	×	×	6A 125V	×	×	×	×	×	×	×	×	E03
AAFES. PX	Y	2-91	0.01 250	×	×	T4A 250V	T4A 250V	×	×	×	O	S62-0001-05	O	×	E03
OTHER ARESS	M	0-21	×	0.01 250	×	T4A 250V	T4A 250V	×	O	×	O	S31-2322-05	O	O	E03
ENGLAND	T	0-51	×	0.01 250	O	T4A 250V	×	×	×	×	×	×	×	×	E03
EUROPE	E	2-71	×	0.01 250	O	T4A 250V	×	T2.5A 250V	×	O	×	×	×	×	E03





			C81	C83	D17	F1	F2	F3	CN7. 8	CN9. 10	S11	S12	WH7. 8 10~13	WH9	J1	K1	WH4
CANADA	P	1-01	0.01 250	×	×	6A 125V	×	×	×	×	×	×	×	×	E03-0111-05	S76-0002-05	E31-7634-05
AAFES. PX	Y	2-91	0.01 250	×	×	T4A 250V	T4A 250V	×	×	×	O	S62-0001-05	O	×	E03-0111-05	S76-0009-05	E35-0374-05
OTHER ARESS	M	0-21	×	0.01 250	×	T4A 250V	T4A 250V	×	O	×	O	S31-2322-05	O	O	E03-0108-05	S76-0009-05	E31-0375-05
ENGLAND	T	0-51	×	0.01 250	O	T4A 250V	×	×	O	×	×	×	×	×	E03-0109-05	S76-0002-05	E35-0375-05
EUROPE	E	2-71	×	0.01 250	O	T4A 250V	×	T2.5A 250V	×	O	×	×	×	×	E03-0108-05	S76-0002-05	E35-0374-05

	WH6	WH15	W87	W88	W101	W102	W104
1-01	E35-0329-05	E31-7792-05	×	×	×	O	O
2-91	E35-0329-05	E31-0330-05	O	×	×	O	×
0-21	E35-0329-05	E31-0330-05	×	O	O	×	×
0-51	E35-0335-06	E31-7792-05	×	O	O	×	O
2-71	E35-0330-05	E31-7792-05	×	×	O	×	×



J1	K1	WH4
E03-0111-05	S76-0002-05	E31-7634-05
E03-0111-05	S76-0009-05	E35-0374-05
E03-0108-05	S76-0009-05	E31-0375-05
E03-0109-05	S76-0002-05	E35-0375-05
E03-0108-05	S76-0002-05	E35-0374-05

	WH6	WH15	W87	W88	W101	W102	W104	W105	T1	IC4
1-01	E35-0329-05	E31-7792-05	X	X	X	O	O	O	L07-0463-05	μPD75216ACW-C60orC89
2-91	E35-0329-05	E31-0330-05	O	X	X	O	X	X	L07-0487-15	μPD75216ACW-C60orC89
0-21	E35-0329-05	E31-0330-05	X	O	O	X	X	X	L07-0487-15	μPD75216ACW-C60orC89
0-51	E35-0335-05	E31-7792-05	X	O	O	X	O	O	L07-0474-15	μPD75216ACW-C89
2-71	E35-0330-05	E31-7792-05	X	X	O	X	X	O	L07-0433-15	μPD75216ACW-C89

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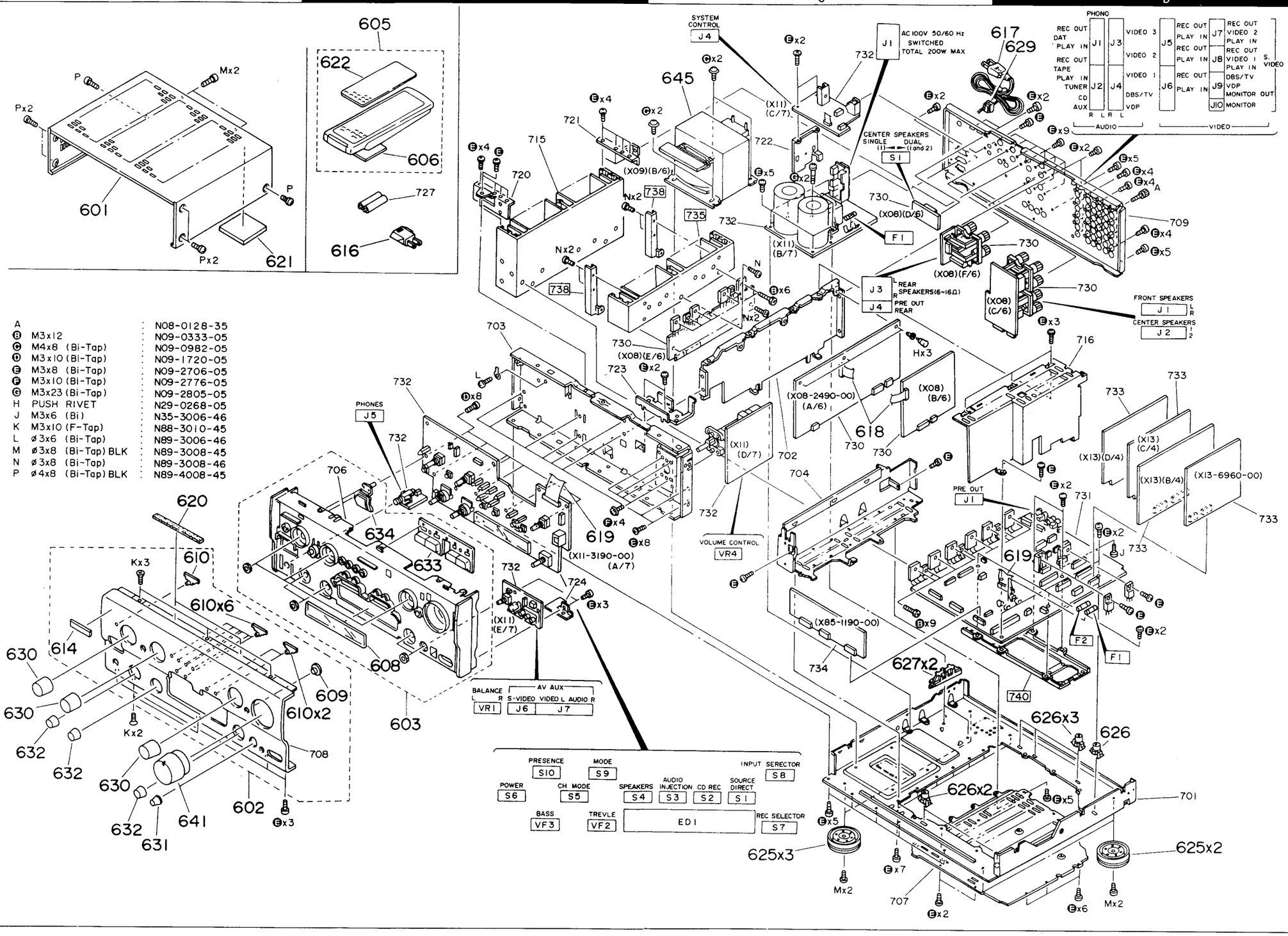
KA-V8500 KA-V8500

EXPLODED VIEW



A		N08-0128-35
B	M3x12	N09-0333-05
C	M4x8 (Bi-Tap)	N09-0982-05
D	M3x10 (Bi-Tap)	N09-1720-05
E	M3x8 (Bi-Tap)	N09-2706-05
F	M3x10 (Bi-Tap)	N09-2776-05
G	M3x23 (Bi-Tap)	N09-2805-05
H	PUSH RIVET	N29-0268-05
J	M3x6 (Bi)	N35-3006-46
K	M3x10 (F-Tap)	N88-3010-45
L	ø3x6 (Bi-Tap)	N89-3006-46
M	ø3x8 (Bi-Tap) BLK	N89-3008-45
N	ø3x8 (Bi-Tap)	N89-3008-46
P	ø4x8 (Bi-Tap) BLK	N89-4008-45

Parts with the exploded numbers larger than 700 are not supplied.

× New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No.1

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KA-V8500			
601	1A	*	A01-1994-01	METALLIC CABINET		
602	3A	*	A60-0152-02	PANEL ASSY		
603	3B	*	A22-1529-12	SUB PANEL ASSY		
605	1B	*	A70-0570-05	REMOTE CONTROLLER ASSY		
606	1B		A09-0086-08	BATTERY COVER		
608	3B	*	B10-1894-04	FRONT GLASS		
609	3A		B11-0237-14	COLOR FILTER		
610	2A,3A	*	B12-0193-04	INDICATOR		
614	3A		B43-0287-04	KENWOOD BADGE		
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0121-13	WARRANTY CARD	P	
-		*	B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-		*	B60-0649-00	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0651-00	INSTRUCTION MANUAL(DUT,ITA)	E	
-		*	B60-0658-00	INSTRUCTION MANUAL(GER,FRN)	EP	
-		*	B60-0659-00	INSTRUCTION MANUAL(SPA,CHI)	M	
⚠ 616	1B		E03-0115-05	AC PLUG ADAPTER	M	
⚠ 617	1D		E30-0459-05	AC POWER CORD	ME	
⚠ 617	1D		E30-0685-05	AC POWER CORD	Y	
⚠ 617	1D		E30-0974-05	AC POWER CORD	P	
⚠ 617	1D		E30-1416-05	AC POWER CORD	T	
618	2C		E35-0009-05	FLAT CABLE 15P(X08CN4-X08CN5)		
619	2B,2D	*	E35-0239-05	FLAT CABLE 27P(X09CN15-X11CN4)		
620	2A		G11-0191-04	SOFT TAPE (90X5X2.5)		
621	1A	*	G11-2109-14	CUSHION		
622	1B		G16-0756-08	REMOTE CONTROL UNIT ENTRYSHEET		
		*	H50-0186-04	ITEM CARTON CASE		
-		*	H10-5226-02	POLYSTYRENE FOAMED FIXTURE L		
-		*	H10-5227-02	POLYSTYRENE FOAMED FIXTURE R		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	MYEP	
-			H25-0319-04	PROTECTION BAG (850X450X0.03)	MYEP	
-			H25-0654-04	PROTECTION BAG (0225 PRINTED)	T	
-			H25-0657-04	PROTECTION BAG (0232 PRINTED)	T	
625	3C,3D		J02-1072-05	FOOT		
626	3C,3D		J19-3179-05	UNIT HOLDER		
627	3C		J19-3314-04	HOLDER		
⚠ 629	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	3A	*	K29-4312-04	KNOB PRESENCE,MODE,INPUTSELECT	OR	
631	3A	*	K29-4313-04	KNOB BALANCE		
632	3A	*	K29-4314-04	KNOB BASS,TREBLE,VIDEO REC		
633	2B	*	K29-4315-03	KNOB SPEAKERS,CD REC		
634	2B	*	K29-4317-04	KNOB POWER		
641	3A	*	K29-4340-04	KNOB VOLUME CONTROL		
⚠ 645	1C	*	L07-0430-05	POWER TRANSFORMER	T	
⚠ 645	1C	*	L07-0431-05	POWER TRANSFORMER	E	
⚠ 645	1C	*	L07-0436-05	POWER TRANSFORMER	M	
645	1C	*	L07-0484-05	POWER TRANSFORMER	P	

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⚠ indicates safety critical components.

SURROUN UNIT

Unit No	Destination
X08-2490-00	M,Y,T,E,P

AUDIO UNIT

X09-3491-01	P
X09-3492-71	M,Y,T,E

CONTROL UNIT

X11-3190-21	M
X11-3190-51	T
X11-3192-01	P
X11-3192-71	E
X11-3192-91	Y

ACCESSORY UNIT

X13-6960-00	M,Y,P
X13-6962-71	T,E

MAIN AMPLIFIER UNIT

X85-1190-06	M,Y,T,E,P

× New Parts
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Teile ohne Parts No. werden nicht geliefert.

No.2

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
645	1C	*	L07-0488-05	POWER TRANSFORMER	Y	
-		*	L92-0035-05	FERRITE CORE		
-		*	L92-0036-05	FERRITE CORE		
A	1D		N08-0128-35	BINDING POST (EARTH)		
B	2C		N09-0333-05	TAPPING SCREW (3X12)		
C	1C		N09-0982-05	TAPTITE SCREW (M4X8,+TP)		
D	2B		N09-1720-05	TAPTITE SCREW (3X10)		
E	1B		N09-2706-05	TAPTITE SCREW		
F	2B		N09-2776-05	SEMS (TAPTITE SCREW)		
G	1C		N09-2805-05	TAPTITE SCREW		
H	2C		N29-0268-05	PUSH RIVET		
K	3A		N88-3010-45	FLAT HEAD TAPTITE SCREW		
L	2B		N89-3006-46	BINDING HEAD TAPTITE SCREW		
M	1A,3D		N89-3008-45	BINDING HEAD TAPTITE SCREW		
P	1A		N89-4008-45	BINDING HEAD TAPTITE SCREW		
			SURROUND UNIT (X08-2490-00)			
C1 ,2			C90-1794-05	ELECTRO 10UF 35WV		
C3			CK45FB1H102K	CERAMIC 1000PF K		
C4			CE04KW1V100M	ELECTRO 10UF 35WV		
C5			CK45FB1H102K	CERAMIC 1000PF K		
C6			CE04KW1V100M	ELECTRO 10UF 35WV		
C7 ,8			CF92FV1H101K	MF 100PF K		
C9 ,10			CF92FV1H221K	MF 220PF K		
C12			CE04KW1V100M	ELECTRO 10UF 35WV		
C13			CF92FV1H104J	MF 0.10UF J		
C14			CK45FB1H102K	CERAMIC 1000PF K		
C15 -18			CF92FV1H104J	MF 0.10UF J		
C19			CK45FB1H102K	CERAMIC 1000PF K		
C20 ,21			CE04KW1V100M	ELECTRO 10UF 35WV		
C22 ,23			CK45FB1H102K	CERAMIC 1000PF K		
C24			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C25			CE04KW1V100M	ELECTRO 10UF 35WV		
C26			CF92FV1H103J	MF 0.010UF J		
C27			CE04KW1A101M	ELECTRO 100UF 10WV		
C28			CF92FV1H104J	MF 0.10UF J		
C29			CF92FV1H474J	MF 0.47UF J		
C30			CE04KW1A471M	ELECTRO 470UF 10WV		
C31 -37			CK45FB1H102K	CERAMIC 1000PF K		
C38 -41			CF92FV1H202J	MF 2000PF J		
C42 -45			CK45FB1H102K	CERAMIC 1000PF K		
C46 ,47			CF92FV1H394J	MF 0.39UF J		
C49 -52			CF92FV1H394J	MF 0.39UF J		
C54 ,55			CF92FV1H394J	MF 0.39UF J		
C56			CC45FSL1H470J	CERAMIC 47PF J		
C57 -60			CF92FV1H183J	MF 0.018UF J		
C61 -64			CF92FV1H562J	MF 5600PF J		
C65 -68			CF92FV1H561J	MF 560PF J		
C69 -72			CF92FV1H562J	MF 5600PF J		
C73 -76			CK45FB1H102K	CERAMIC 1000PF K		
C77 -80			CF92FV1H471J	MF 470PF J		
C81 ,82			CE04KW1E470M	ELECTRO 47UF 25WV		
C83 ,84			CF92FV1H474J	MF 0.47UF J		
C85			CE04KW1V100M	ELECTRO 10UF 35WV		
C86 -88			CF92FV1H122J	MF 1200PF J		

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× New Parts
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Teile ohne Parts No. werden nicht geliefert.

No.3

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C89			CF92FV1H302J	MF 3000PF J		
C90 ,91			CE04KW1V100M	ELECTRO 10UF 35WV		
C92			CE04KW1A101M	ELECTRO 100UF 10WV		
C93 ,94			CE04KW1V100M	ELECTRO 10UF 35WV		
C95 ,96			CK45FB1H102K	CERAMIC 1000PF K		
C97 ,98			CE04KW1V100M	ELECTRO 10UF 35WV		
C100,101			CE04KW1V100M	ELECTRO 10UF 35WV		
C102,103			CF92FV1H162J	MF 1600PF J		
C104,105			CF92FV1H151K	MF 150PF K		
C106			CF92FV1H103J	MF 0.010UF J		
C107			CF92FV1H162J	MF 1600PF J		
C108			CF92FV1H152J	MF 1500PF J		
C109			CF92FV1H151K	MF 150PF K		
C110-113			CK45FB1H102K	CERAMIC 1000PF K		
C114			CE04KW1V100M	ELECTRO 10UF 35WV		
C115,116			CK45FB1H102K	CERAMIC 1000PF K		
C117			CE04KW1V100M	ELECTRO 10UF 35WV		
C118,119			CK45FB1H102K	CERAMIC 1000PF K		
C120,121			CE04KW1V100M	ELECTRO 10UF 35WV		
C122,123			CE04KW1H220M	ELECTRO 22UF 50WV		
C124			CE04KW1V100M	ELECTRO 10UF 35WV		
C125			CF92FV1H683J	MF 0.068UF J		
C126			CF92FV1H822J	MF 8200PF J		
C127			CE04KW1A101M	ELECTRO 100UF 10WV		
C128			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C129			CF92FV1H472J	MF 4700PF J		
C130			CE04KW1H220M	ELECTRO 22UF 50WV		
C131			CF92FV1H334J	MF 0.33UF J		
C132			CF92FV1H104J	MF 0.10UF J		
C133			CF92FV1H333J	MF 0.033UF J		
C134			CF92FV1H273J	MF 0.027UF J		
C135			CE04KW1A471M	ELECTRO 470UF 10WV		
C136-141			CE04KW1H220M	ELECTRO 22UF 50WV		
C142-144			CC45FSL1H101J	CERAMIC 100PF J		
C145,146			CK45FB1H102K	CERAMIC 1000PF K		
C147-150			CF92FV1H101K	MF 100PF K		
C151,152			CK45FB1H102K	CERAMIC 1000PF K		
C153,154			CE04KW1H220M	ELECTRO 22UF 50WV		
C155,156			CK45FB1H102K	CERAMIC 1000PF K		
C157,158			CE04KW1V100M	ELECTRO 10UF 35WV		
C159			CE04KW1C102M	ELECTRO 1000UF 16WV		
C160			CE04KW1A101M	ELECTRO 100UF 10WV		
C161			CC45FSL1H101J	CERAMIC 100PF J		
C162,163			CC45FSL1H470J	CERAMIC 47PF J		
C179			CE04KW1H220M	ELECTRO 22UF 50WV		
C180			CK45FB1H102K	CERAMIC 1000PF K		
C181			CE04KW1H220M	ELECTRO 22UF 50WV		
C182			CK45FB1H102K	CERAMIC 1000PF K		
C183			CE04KW1H220M	ELECTRO 22UF 50WV		
C184			CK45FB1H102K	CERAMIC 1000PF K		
C185			CE04KW1H220M	ELECTRO 22UF 50WV		
C186			CK45FB1H102K	CERAMIC 1000PF K		
C187			CE04KW1A471M	ELECTRO 470UF 10WV		
C188,189			CK45FB1H102K	CERAMIC 1000PF K		
C190,191			CE04KW1H220M	ELECTRO 22UF 50WV		

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PARTS LIST KA-V8500

* New Parts
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Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Telle ohne Parts No. werden nicht geliefert.

No.4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C192			CC45FSL1H220J	CERAMIC 22PF J		
C193-195			CC45FSL1H470J	CERAMIC 47PF J		
C196			CF92FV1H104J	MF 0.10UF J		
C197			CE04KW1E470M	ELECTRO 47UF 25WV		
C198,199			CK45FB1H102K	CERAMIC 1000PF K		
C200			CE04KW1V100M	ELECTRO 10UF 35WV		
C201			CK45FB1H102K	CERAMIC 1000PF K		
C202			CC45FSL1H470J	CERAMIC 47PF J		
C203,204			CC45FSL1H331J	CERAMIC 330PF J		
C205			CE04KW1E470M	ELECTRO 47UF 25WV		
C206			CE04KW1C471M	ELECTRO 470UF 16WV		
C208			CC45FSL1H101J	CERAMIC 100PF J		
C251			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C252,253			CF92FV1H472J	MF 4700PF J		
C256			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C257-262			CF92FV1H104J	MF 0.10UF J		
C263			CF92FV1H103J	MF 0.010UF J		
C265,266			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C267,268			CF92FV1H103J	MF 0.010UF J		
C281,282			CE04KW1H100M	ELECTRO 10UF 50WV		
C283,284			CF92FV1H121K	MF 120PF K		
C285,286			CC45FSL1H121J	CERAMIC 120PF J		
C287,288			CE04KW1H101M	ELECTRO 100UF 50WV		
C289,290			CK45FB1H471K	CERAMIC 470PF K		
C291,292			CC45FSL1H150J	CERAMIC 15PF J		
C293,294			CF92FV1H683J	MF 0.068UF J		
C295,296			CC45FSL1H150J	CERAMIC 15PF J		
C297,298			CK45FB1H222K	CERAMIC 2200PF K		
C299-302			CF92FV1H683J	MF 0.068UF J		
C303,304			CE04KW1V100M	ELECTRO 10UF 35WV		
C311-314			CF92FV1H104J	MF 0.10UF J		
C315,316			CF92FV1H472J	MF 4700PF J		
C317,318			CF92FV1H821J	MF 820PF J		
C319,320			CC45FSL1H221J	CERAMIC 220PF J		
C331-334			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C335			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C336			CE04KW1H471M	ELECTRO 470UF 50WV		
C337			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C338			CK45FB1H102K	CERAMIC 1000PF K		
J1 ,2		*	E70-0010-05	SCREW TERMINAL BOARD F-SPEAKER		
J3		*	E70-0009-05	SCREW TERMINAL BOARD R-SPEAKER		
J4		*	E63-0044-05	PHONO JACK REAR PREOUT		
L4			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
L5 -7			L39-0085-05	PHASE-COMPENSATION COIL		
L8 ,9			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)		
X1			L77-1185-05	CRYSTAL RESONATOR 18.432MHz		
B	1C		N09-0333-05	TAPPING SCREW (3X12)		
J	2C		N35-3008-46	BINDING HEAD MACHIN SCREW		
N	1B,1C		N89-3008-46	BINDING HEAD TAPTITE SCREW		
CP1 ,2			R90-0826-05	MULTI-COMP 0.22X2 J 5W		
R25			RD14AB2E150JTS	FL-PROOF RD 15 J 1/4W		
R190,191			RS14DB3D680JTE	FL-PROOF RS 68 J 2W		
R208			RS14DB3D680JTE	FL-PROOF RS 68 J 2W		
R209			RD14AB2E221JTS	FL-PROOF RD 220 J 1/4W		

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* New Parts
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Telle ohne Parts No. werden nicht geliefert.

No.5

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
R210			RS14KB3A2R7JTE	FL-PROOF RS 2.7 J 1W		
R251			RS14DB3D391JTE	FL-PROOF RS 390 J 2W	TE	
R251			RS14DB3D471JTE	FL-PROOF RS 470 J 2W	MYP	
R253,254		*	RS14DB3D103JTE	FL-PROOF RS 10K J 2W		
R255		*	RS14DB3D472JTE	FL-PROOF RS 4.7K J 2W		
R256-259			RS14DB3D561JTE	FL-PROOF RS 560 J 2W		
R260,261			RS14DB3D151JTE	FL-PROOF RS 150 J 2W		
R262-264			RS14DB3D100JTE	FL-PROOF RS 10 J 2W		
R269			RS14DB3D391JTE	FL-PROOF RS 390 J 2W	TE	
R269			RS14DB3D471JTE	FL-PROOF RS 470 J 2W	MYP	
R272			RS14DB3D391JTE	FL-PROOF RS 390 J 2W	TE	
R272			RS14DB3D471JTE	FL-PROOF RS 470 J 2W	MYP	
R273		*	RS14DB3A4R7JTE	FL-PROOF RS 4.7 J 1W		
R274-276			RS14DB3D391JTE	FL-PROOF RS 390 J 2W	TE	
R274-276			RS14DB3D471JTE	FL-PROOF RS 470 J 2W	MYP	
R285,286			RN14BK2C4220FTS	RN 422.0 F 1/6W		
R301-304		*	RD14AB2E100JTS	FL-PROOF RD 10 J 1/4W		
R311,312			RD14AB2E8R2JTS	FL-PROOF RD 8.2 J 1/4W		
R313,314			RS14DB3A100JTE	FL-PROOF RS 10 J 1W		
R321,322			RS14DB3A100JTE	FL-PROOF RS 10 J 1W		
R331			RS14DB3D471JTE	FL-PROOF RS 470 J 2W		
R334			RD14AB2E220JTS	FL-PROOF RD 22 J 1/4W		
VR1 ,2			R12-1084-05	TRIM POT 1K		
VR3 -7			R12-5422-05	TRIMMING POT		
K1 ,2			S51-2092-05	MAGNETIC RELAY		
K3			S51-2090-05	MICRO SWITCH		
K3 ,4			S76-0005-05	MAGNETIC RELAY		
K4			S76-0005-05	MAGNETIC RELAY		
⚠ S1			S31-2128-05	SLIDE SWITCH S-SPEAKER SELECT		
D1 -6			HSS104	DIODE		
D1 -6			1SS133	DIODE		
D16			HZS11N(B2)	ZENER DIODE		
D16			RD11ES(B2)	ZENER DIODE		
D17			HZS13N(B2)	ZENER DIODE		
D17			RD13ES(B2)	ZENER DIODE		
D18			HZS11N(B2)	ZENER DIODE		
D18			RD11ES(B2)	ZENER DIODE		
D19			HZS13N(B2)	ZENER DIODE		
D19			RD13ES(B2)	ZENER DIODE		
D20			HZS11N(B2)	ZENER DIODE		
D20			RD11ES(B2)	ZENER DIODE		
D21			HZS13N(B2)	ZENER DIODE		
D21			RD13ES(B2)	ZENER DIODE		
D31 ,32			HSS104A	DIODE		
D31 ,32			1SS131	DIODE		
D41			HZS11N(B2)	ZENER DIODE		
D41			RD11ES(B2)	ZENER DIODE		
D42			HZS13N(B2)	ZENER DIODE		
D42			RD13ES(B2)	ZENER DIODE		
D43 ,44			HSS104	DIODE		
D43 ,44			1SS133	DIODE		
IC1 ,2			M5238L	IC(DUAL OP AMP)		
IC3			CS5339-KP	IC(A/D CONVERTER)		
IC4			TA7805S	IC(VOLTAGE REGULATOR/ +5V)		

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No.6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
IC4			UPC7805AHF	IC(VOLTAGE REGULATOR)		
IC5			TA79005S	IC(VOLTAGE REGULATOR)		
IC5		*	UPC7905AHF	IC(VOLTAGE REGULATOR/ -5V)		
IC6			TA7805S	IC(VOLTAGE REGULATOR/ +5V)		
IC6			UPC7805AHF	IC(VOLTAGE REGULATOR)		
IC7			TC74HC74AP	IC(DUAL D-TYPE FLIP FLOP)		
IC8 ,9			TC74HCU04AP	IC(CMOS INVERTER)		
IC10			TA79005S	IC(VOLTAGE REGULATOR)		
IC10		*	UPC7905AHF	IC(VOLTAGE REGULATOR/ -5V)		
IC11			TA7805S	IC(VOLTAGE REGULATOR/ +5V)		
IC11			UPC7805AHF	IC(VOLTAGE REGULATOR)		
IC12,13			PCM1700U	IC(D/A CONVETER)		
IC14-17			NJM4580L	IC(OP AMP)		
IC18,19			SM5840EP	IC(DIGITAL FILTER)		
IC20,21			PCM1700U	IC(D/A CONVETER)		
IC22,23			TA7805S	IC(VOLTAGE REGULATOR/ +5V)		
IC22,23			UPC7805AHF	IC(VOLTAGE REGULATOR)		
IC24			TA79005S	IC(VOLTAGE REGULATOR)		
IC24		*	UPC7905AHF	IC(VOLTAGE REGULATOR/ -5V)		
IC25,26			NJM4580L	IC(OP AMP)		
IC27			LA2730	IC(DOLBY SYSTEM)		
IC28			TC9213P	IC(2CH ELECTRONIC VOLUME)		
IC29-31			NJM4580D	IC(OP AMP X2)		
IC32,33			NJM4580L	IC(OP AMP)		
IC34			TL431CLP	IC(REGULATOR)		
IC34			UPC1093J	IC(REGULATOR)		
IC35-37			LM33464G-12	IC(D RAM)		
IC35-37			MT4067-10	IC(64KX4 DYNAMIC RAM)		
IC38		*	SM5851AF	IC(DIGITAL SIGNAL PROCESSOR)		
IC39			LC83010N	IC(DIGITAL SIGNAL PROCESSOR)		
IC40			TC74HCU04AP	IC(CMOS INVERTER)		
IC41			TA78L005AP	IC(VOLTAGE REGULATOR/ +5V)		
IC41			UPC78L05J	IC(VOLTAGE REGULATOR/ +5V)		
IC43,44			UPC1270H	IC(POWER AMP DRIVER)		
Q1 -4			2SD1266	TRANSISTOR		
Q1 -4			2SD2061	TRANSISTOR		
Q5			2SK152(3,4)	FET		
Q6 -8			2SC2003(L,K)	TRANSISTOR		
Q9 ,10			2SC1845(F,E)	TRANSISTOR		
Q11 ,12			2SC4466LC	TRANSISTOR		
Q13 ,14			2SA1693LC	TRANSISTOR		
Q15 ,16			2SC4137	TRANSISTOR		
Q21			2SC2003(L,K)	TRANSISTOR		
AUDIO UNIT (X09-3491-01:P,2-71:M,Y,T,E)						
C1			CE04KW1A470M	ELECTRO 47UF 10WV		
C2 ,3			CK45FF1H103Z	CERAMIC 0.010UF Z		
C4			CF92FV1H101K	MF 100PF K		
C28 -30			CF92FV1H103J	MF 0.010UF J		
C31 ,32			CE04KW1C220M	ELECTRO 22UF 16WV		
C33 ,34			CF92FV1H103J	MF 0.010UF J		
C35 -38			CF92FV1H683J	MF 0.068UF J		
C39 ,40			CF92FV1H121K	MF 120PF K		
C41 ,42			CE04KW1E221M	ELECTRO 220UF 25WV		
C43			CE04KW1C220M	ELECTRO 22UF 16WV		

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No.7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C44			CF92FV1H103J	MF 0.010UF J		
C45 ,46			CF92FV1H683J	MF 0.068UF J		
C47			CE04KW1C331M	ELECTRO 330UF 16WV		
C48			CF92FV1H561J	MF 560PF J		
C51		*	C90-1927-05	ELECTRO 220UF 50WV		
C52		*	C91-1445-05	POLYPRO 0.10UF K		
C60			CE04KW1A470M	ELECTRO 47UF 10WV		
C61			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C62			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C63 -66			CF92FV1H103J	MF 0.010UF J		
C70			CF92FV1H103J	MF 0.010UF J		
C73 ,74			CF92FV1H102J	MF 1000PF J		
C75			CF92FV1H103J	MF 0.010UF J		
C76 -79			CF92FV1H102J	MF 1000PF J		
C80 ,81			C90-1233-05	ELECTRO 6800UF 42WV		
C82 ,83			CE04KW1E102M	ELECTRO 1000UF 25WV		
C84 ,85			CE04KW1C222M	ELECTRO 2200UF 16WV		
C86 ,87			CE04KW1C101M	ELECTRO 100UF 16WV		
C88 ,89			CE04KW1A102M	ELECTRO 1000UF 10WV		
C90 ,91			CF92FV1H103J	MF 0.010UF J		
C92 -95			CF92FV1H102J	MF 1000PF J		
C96 ,97			CE04KW1C101M	ELECTRO 100UF 16WV		
C98 -101			CF92FV1H102J	MF 1000PF J		
C102,103			CE04KW1A101M	ELECTRO 100UF 10WV		
C104-107			CK45FE2H103P	CERAMIC 0.010UF P		
C108			CF92FV1H103J	MF 0.010UF J		
C109,110			CF92FV1H102J	MF 1000PF J		
C111-114			CE04KW1H220M	ELECTRO 22UF 50WV		
C115,116			CF92FV1H102J	MF 1000PF J		
C117,118			CF92FV1H221K	MF 220PF K		
C119			CF92FV1H103J	MF 0.010UF J		
C120-125			CE04KW2A2R2M	ELECTRO 2.2UF 100WV		MYTE
C120-131			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		P
J1			B13-1403-05	PHONO JACK F-PREOUT,PROLOGIC		
F1 ,2			F05-4025-05	FUSE (SEMKO) (250V T4A)		MYTE
F1 ,2			F05-4028-05	FUSE (UL)		P
F3 -6			F53-0015-05	FUSE(SEMKO)		MYTE
F3 -6			F53-0031-05	FUSE(UL)		P
F7 ,8		*	F53-0038-05	FUSE(UL)		P
CN21-24			J13-0075-05	FUSE CLIP		
J4 -7			J11-0098-05	WIRE CLAMPER		
L1 ,2			L39-0085-05	PHASE-COMPENSATION COIL		
L4			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)		
L5			L92-0017-05	FERRITE CORE		
X1			L78-0277-05	RESONATOR 4.19MHz		
J	2D		N35-3008-46	BINDING HEAD MACHIN SCREW		
M	2D		N89-3008-45	BINDING HEAD TAPTITE SCREW		
N	2D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
CP1 -3			R90-0187-05	MULTI-COMP 0.22X2 K 5W		
CP4			R90-0487-05	MULTI-COMP 47KX4 J 1/6W		
CP5 ,6			R90-0482-05	MULTI-COMP 100KX4 J 1/6W		
CP7 ,8		*	R90-0885-05	MULTIPLE RESISTOR		
R109,110			RD14AB2E220JTS	FL-PROOF RD 22 J 1/4W		

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No.8

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
R111			RD14GB2E220JTS	FL-PROOF RD 22 J 1/4W		
R112			RD14AB2E220JTS	FL-PROOF RD 22 J 1/4W		
R117,118			RD14AB2E220JTS	FL-PROOF RD 22 J 1/4W		
R119,120		*	RN14BK2C7500FTS	RN 750.0 F 1/6W		
R123			RN14BK2C2370FTS	RN 237.0 F 1/6W		
R137,138			RS14DB3D4R7JTE	FL-PROOF RS 4.7 J 2W		
R139,140		*	RS14DB3A4R7JTE	FL-PROOF RS 4.7 J 1W		
R142			RS14DB3D4R7JTE	FL-PROOF RS 4.7 J 2W		
R159		*	RN14BK2E47R0FTS	RN 47.0 F 1/4W		
R160		*	RS14DB3D562JTE	FL-PROOF RS 5.6K J 2W		
R180-181			RS14DB3D820JTE	FL-PROOF RS 82 J 2W		
R182			RS14DB3D101JTE	FL-PROOF RS 100 J 2W		
VR1 -3		*	R12-1617-05	TRIMMING POT.(470)		
D1 -3			HSS104A	DIODE		
D1 -3			1SS131	DIODE		
D4			S5688B	DIODE		
D5			HZS15S(B)	ZENER DIODE		
D5			RD15JS(B)	ZENER DIODE		
D6			HSS104A	DIODE		
D6			1SS131	DIODE		
D7			HZS4.7N(B)	ZENER DIODE		
D7			RD4.7ES(B)	ZENER DIODE		
D8 ,9			HSS104	DIODE		
D8 ,9			1SS133	DIODE		
D10			D5FB20*1	DIODE		
D11			D3SBA20F03	DIODE		
D12 -19			S5688B	DIODE		
D20 -27			HSS104	DIODE		
D20 -27			1SS133	DIODE		
IC1			TA7815S	IC(VOLTAGE REGULATOR/ +15V)		
IC1		*	UPC7815AHF	IC(VOLTAGE REGULATOR/+15V)		
IC2			TA79015S	IC(VOLTAGE REGULATOR/ -15V)		
IC2			UPC7915HF	IC(VOLTAGE REGULATOR/ -15V)		
IC3			TA7808S	IC(VOLTAGE REGULATOR/ +8V)		
IC3			UPC7808AHF	IC(VOLTAGE REGULATOR)		
IC4			TA79008S	IC(VOLTAGE REGULATOR)		
IC4			UPC7908HF	IC(VOLTAGE REGULATOR/ -8V/1A)		
IC5			TA7815S	IC(VOLTAGE REGULATOR/ +15V)		
IC5		*	UPC7815AHF	IC(VOLTAGE REGULATOR/+15V)		
IC6			TA79015S	IC(VOLTAGE REGULATOR/ -15V)		
IC6			UPC7915HF	IC(VOLTAGE REGULATOR/ -15V)		
IC7		*	UPD78214CW-E41	IC(MICRO PROCESSOR)		
IC8			TC9162N	IC(ANALOG SWITCH ARRAY)		
Q1 ,2			2SC4137F19(V,W)	TRANSISTOR		
Q3 ,4			2SD2222*5	TRANSISTOR		
Q5 ,6			2SB1470*5	TRANSISTOR		
Q7 ,8			2SC1845(F,E)	TRANSISTOR		
Q10			2SC4137F19(V,W)	TRANSISTOR		
Q11			2SD2222*5	TRANSISTOR		
Q12			2SB1470*5	TRANSISTOR		
Q13			2SC1845(F,E)	TRANSISTOR		
Q20			2SA992(F,E)	TRANSISTOR		
Q21 ,22			2SC1845(F,E)	TRANSISTOR		

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No.9

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
CONTROL UNIT (X11-3190-21:M,0-51:T,1-01:P,2-71:E,2-91:Y)						
D52 -60			B30-1012-05	LED(SLP-981C-50)		
C1			CE04KW1C102M	ELECTRO 1000UF 16WV		
C2			CE04KW1C222M	ELECTRO 2200UF 16WV		
C3			CE04KW0J331M	ELECTRO 330UF 6.3WV		
C4			CE04KW0J471M	ELECTRO 470UF 6.3WV		
C6			CE04KW1V100M	ELECTRO 10UF 35WV		
C7 ,8			CK45FF1H473Z	CERAMIC 0.047UF Z		
C9			CE04KW1V101M	ELECTRO 100UF 35WV		
C10			CE04KW1H471M	ELECTRO 470UF 50WV		
C11 ,12			CE04KW1V471M	ELECTRO 470UF 35WV		
C13			CE04KW1C220M	ELECTRO 22UF 16WV		
C14 ,15			CC45FSL1H221J	CERAMIC 220PF J		
C16			CK45FB1H471K	CERAMIC 470PF K		
C17 ,18			CK45FF1H103Z	CERAMIC 0.010UF Z		
C19			CK45FB1H102K	CERAMIC 1000PF K		
C20 -23			CK45FF1H103Z	CERAMIC 0.010UF Z		
C24 ,25			CE04KW1H220M	ELECTRO 22UF 50WV		
C26 -31			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C32 -35			CE04KW1H220M	ELECTRO 22UF 50WV		
C36 -39			CF92FV1H473J	MF 0.047UF J		
C40 -43			CF92FV1H121K	MF 120PF K		
C44 ,45			CF92FV1H561J	MF 560PF J		
C46 ,47			CF92FV1H102J	MF 1000PF J		
C48 ,49			CF92FV1H121K	MF 120PF K		
C50			C91-0769-05	CERAMIC 0.01UF K		
C51		*	C90-3244-05	ELECTRO 1.0UF 50WV		
C52			C90-1827-05	BACKUP 0.047F 5.5WV		
C53			CK45FF1H103Z	CERAMIC 0.010UF Z		
C54			CE04KW1A101M	ELECTRO 100UF 10WV		
C55 -58			CK45FF1H223Z	CERAMIC 0.022UF Z		
C59			CK45FF1H103Z	CERAMIC 0.010UF Z		
C60 ,61			CK45FF1H223Z	CERAMIC 0.022UF Z		
C62			CK45FF1H103Z	CERAMIC 0.010UF Z		
C63			CE04KW1A101M	ELECTRO 100UF 10WV		
C64			CF92FV1H474J	MF 0.47UF J		
C65 ,66			CF92FV1H221K	MF 220PF K		
C67 ,68			CC45FSL1H121J	CERAMIC 120PF J		
C69 ,70			CF92FV1H104J	MF 0.10UF J		
C71			CK45FF1H103Z	CERAMIC 0.010UF Z		
C72 ,73			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C74			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C75			CE04KW1V100M	ELECTRO 10UF 35WV		
C76			CE04KW1E101M	ELECTRO 100UF 25WV		
C77			CK45FF1H473Z	CERAMIC 0.047UF Z		
C79			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C80			CK45FF1H103Z	CERAMIC 0.010UF Z		
⚠C82 ,83			C91-1439-05	FILM 0.01UF 250VAC		
⚠C82 ,83			C91-1443-05	FILM 0.01UF 250VAC		
C84 ,85			CF92FV1H102J	MF 1000PF J		
C86			CK45FF1H103Z	CERAMIC 0.010UF Z		
C87			CK45FB2H103P	CERAMIC 0.010UF P		
C88 ,89			CE04KW1H220M	ELECTRO 22UF 50WV		

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No.10

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C91 ,92			CK45FF1H103Z	CERAMIC 0.010UF Z		
C93			CK45FF1H473Z	CERAMIC 0.047UF Z		
C94 ,95			CE04KW1H220M	ELECTRO 22UF 50WV		
C97 ,98			CK45FF1H103Z	CERAMIC 0.010UF Z		
C99			C91-0769-05	CERAMIC 0.01UF K		
C100			CK45FF1H103Z	CERAMIC 0.010UF Z		
C101,102		*	C90-1954-05	ELECTRO 15000UF 63WV		
⚠ J1			E03-0108-05	AC OUTLET	ME	
⚠ J1			E03-0109-05	AC OUTLET	T	
⚠ J1			E03-0111-05	AC OUTLET	YP	
J4			E11-0188-05	MINIATURE PHONE JACK SYNCRO		
J5			E11-0208-05	PHONE JACK PHONES		
J6			E06-0410-05	CYLINDRICAL RECEPTACLE S-VIDEO		
J7		*	E63-0032-05	PHONO JACK VIDEO/PLAY		
⚠ F1			F05-4025-05	FUSE (SEMKO) (250V T4A)	TE	
⚠ F1			F05-6029-05	FUSE (UL)	P	
⚠ F1 ,2			F05-4025-05	FUSE (SEMKO) (250V T4A)	MY	
⚠ F3			F05-2525-05	FUSE (SEMKO) (250V T2.5A)	E	
-			J11-0098-05	WIRE CLAMPER		
CN5 -8			J13-0075-05	FUSE CLIP	MY	
CN5 ,6			J13-0075-05	FUSE CLIP	TBP	
CN9 ,10			J13-0075-05	FUSE CLIP	E	
L1 ,2			L92-0028-05	FERRITE CORE		
			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)		
⚠ T1		*	L07-0433-05	POWER TRANSFORMER	E	
⚠ T1		*	L07-0474-05	POWER TRANSFORMER	T	
⚠ T1		*	L07-0483-05	POWER TRANSFORMER	P	
⚠ T1		*	L07-0487-05	POWER TRANSFORMER	MY	
X1			L78-0267-05	RESONATOR 4.19MHz		
J	2B		N35-3008-46	BINDING HEAD MACHIN SCREW		
CP1			R90-0803-05	MULTI-COMP 100KX7 J 1/4W		
R4		*	RS14KB3A820JTE	FL-PROOF RS 82 J 1W		
R24			RD14GB2E100JTS	FL-PROOF RD 10 J 1/4W		
R27			RD14GB2E100JTS	FL-PROOF RD 10 J 1/4W		
R163		*	RS14KB3D101JTE	FL-PROOF RS 100 J 2W		
R165		*	RS14KB3D121JTE	FL-PROOF RS 120 J 2W		
VR1		*	R05-3023-05	POTENTIOMETER 20KB BALANCE		
VR2 ,3		*	R06-2026-05	POTENTIOMETER 5KBX2 BASS,TREBL		
VR4		*	R29-5061-05	POTENTIOMETER 100AX5 VOLUME		
⚠ K1			S76-0002-05	MAGNETIC RELAY	TBP	
K1			S76-0009-05	MAGNETIC RELAY	MY	
S1 -6			S40-1064-05	PUSH SWITCH		
S7		*	S60-0011-05	ROTARY SWITCH VIDEO1/REC		
⚠ S11			S31-2128-05	SLIDE SWITCH VOLTAGE SELECTOR	MY	
S12			S31-2136-05	SLIDE SWITCH VOLTAGE SELECTOR	Y	
⚠ S12			S31-2322-05	SLIDE SWITCH VOLTAGE SELECTOR	M	
S8 -10			T99-0509-05	ROTARY ENCODER INPUT,MODE,PRES		
D1 -8			S5688B	DIODE		
D9			HZS6.8N(B2)	ZENER DIODE		
D9			RD6.8ES(B2)	ZENER DIODE		
D10			HZS5.1N(B2)	ZENER DIODE		

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No.11

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D10			RD5.1ES(B2)	ZENER DIODE		
D11			HZS5.1S(B2)	ZENER DIODE		
D11			RD5.1JS(B2)	ZENER DIODE		
D12			HZS5.1N(B2)	ZENER DIODE		
D12			RD5.1ES(B2)	ZENER DIODE		
D13 -16			HSS104	DIODE	MYP	
D13 -16			1SS133	DIODE	MYP	
D13 -27			HSS104	DIODE	TE	
D13 -27			1SS133	DIODE	TE	
D18 -27			HSS104	DIODE	MYP	
D18 -27			1SS133	DIODE	MYP	
D28			HZS5.1N(B2)	ZENER DIODE		
D28			RD5.1ES(B2)	ZENER DIODE		
D29 -49			HSS104	DIODE		
D29 -49			1SS133	DIODE		
D50			HZS5.1N(B2)	ZENER DIODE		
D50			RD5.1ES(B2)	ZENER DIODE		
D51			HSS104A	DIODE		
D51			1SS131	DIODE		
D61 -64			HSS104	DIODE		
D61 -64			1SS133	DIODE		
D65			S5688B	DIODE		
D66 -69			HSS104	DIODE		
D66 -69			1SS133	DIODE		
D70			S5688B	DIODE		
ED1		*	FIP12BTM7	FLUORESCENT INDICATOR TUBE		
IC1			NJM4558D	IC(OP AMP X2)		
IC2			TA8409S	IC(MOTOR CONTROL)		
IC3			NJM4560D-A	IC(OP AMPX2)		
IC3			NJM4565D-D	IC(OP AMP X2)		
IC4		*	UPD75216ACW-C60	IC(MICROPROCESSOR)	MYP	
IC4		*	UPD75216ACW-C89	IC(MICROPROCESSOR)	TE	
IC4		*	UPD75216ACW-C89	IC(MICROPROCESSOR)	MYP	
IC5		*	NJU3711D	IC(8BIT I/O EXPANDER)		
IC6			M6M80041P	IC(EP ROM)		
IC7			NJM4560D-A	IC(OP AMPX2)		
IC7			NJM4565D-D	IC(OP AMP X2)		
Q1		*	2SB1370(E,F,G)	TRANSISTOR		
Q2		*	2SD2061(E,F,G)	TRANSISTOR		
Q3		*	2SB1370(E,F,G)	TRANSISTOR		
Q4			2SA954(L,K)	TRANSISTOR		
Q5			DTA113ZS	DIGITAL TRANSISTOR		
Q5			UN4119	TRANSISTOR		
Q6 -10			2SC2878(B)	TRANSISTOR		
Q11			DTA124ES	DIGITAL TRANSISTOR		
Q11			UN4112	TRANSISTOR		
Q12			DTC124ES	DIGITAL TRANSISTOR		
Q12			UN4212	TRANSISTOR		
Q13			2SC2458(Y,GR)	TRANSISTOR		
Q13			2SC3311A(Q,R)	TRANSISTOR		
Q14			DTA113ZS	DIGITAL TRANSISTOR		
Q14			UN4119	TRANSISTOR		
Q15			DTC124ES	DIGITAL TRANSISTOR		
Q15			UN4212	TRANSISTOR		
Q16			2SC2458(Y,GR)	TRANSISTOR		

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Y:AAFES(Europe) X:Australia M:Other Areas

⚠ indicates safety critical components.

* New Parts
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Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No.12

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格			Destination 仕向	Remarks 備考
Q16			2SC3311A(Q,R)	TRANSISTOR				
Q17			DTC113ZS	DIGITAL TRANSISTOR				
Q17			UN4219	TRANSISTOR				
Q18			2SA1048(Y,GR)	TRANSISTOR				
Q18			2SA1309A(Q,R)	TRANSISTOR				
A1			W02-0975-05	ELECTRIC CIRCUIT MODULE				
ACCESSORY UNIT (X13-6960-00:M,Y,P,2-71:T,E)								
C1 ,2			CE04KW1V100M	ELECTRO	10UF	35WV		
C3 ,4			CF92FV1H102J	MF	1000PF	J		
C5 ,6			CF92FV1H123J	MF	0.012UF	J		
C7 ,8			CF92FV1H332J	MF	3300PF	J		
C9 ,10			CF92FV1H101K	MF	100PF	K		
C13 ,14			CF92FV1H182J	MF	1800PF	J		
C15 ,16			CE04KW0J331M	ELECTRO	330UF	6.3WV		
C17 ,18			CE04KW1V100M	ELECTRO	10UF	35WV		
C19 ,20			CF92FV1H102J	MF	1000PF	J		
C21 ,22			CC45FSL1H101J	CERAMIC	100PF	J		
C23 -36			CC45FSL1H221J	CERAMIC	220PF	J		
C41 ,42			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C43 ,44			CC45FSL1H221J	CERAMIC	220PF	J		
C51 ,52			CE04KW1H220M	ELECTRO	22UF	50WV		
C53 ,54			CF92FV1H221K	MF	220PF	K		
C55 ,56			C90-1921-05	ELECTRO	22UF	25WV		
C57 ,58			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C59 ,60			CC45FSL1H221J	CERAMIC	220PF	J		
C63 ,64			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C65 ,66			CC45FSL1H221J	CERAMIC	220PF	J		
C71 -86			CC45FSL1H221J	CERAMIC	220PF	J		
C101-104			CK45FB1H102K	CERAMIC	1000PF	K		
C105			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C106,107			CF92FV1H104J	MF	0.10UF	J		
C111-114			CK45FB1H102K	CERAMIC	1000PF	K		
C115			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C118-121			CE04KW1H101M	ELECTRO	100UF	50WV		
C122-129			CK45FB1H102K	CERAMIC	1000PF	K		
C201-204			CK45FB1H102K	CERAMIC	1000PF	K		
C205,206			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C207			CE04KW1A470M	ELECTRO	47UF	10WV		
C208			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C210			CE04KW1A470M	ELECTRO	47UF	10WV		
C211,212			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C213,214			CE04KW1A470M	ELECTRO	47UF	10WV		
C215-217			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C218,219			CE04KW1V100M	ELECTRO	10UF	35WV		
C220			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C222			CC45FSL1H100D	CERAMIC	10PF	D		
C223			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C224			CE04KW1V100M	ELECTRO	10UF	35WV		
C226			CE04KW1V100M	ELECTRO	10UF	35WV		
C229			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C230			CE04KW1V100M	ELECTRO	10UF	35WV		
C231			CC45FSL1H470J	CERAMIC	47PF	J		
C233-235			CE04KW1V100M	ELECTRO	10UF	35WV		
C236			CK45FF1H103Z	CERAMIC	0.010UF	Z		

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Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No.13

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格			Destination 仕向	Remarks 備考
C237			CC45FSL1H100D	CERAMIC	10PF	D		
C238			CC45FSL1H470J	CERAMIC	47PF	J		
C239			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C240-242			CE04KW1V100M	ELECTRO	10UF	35WV		
C243			CK45FB1H102K	CERAMIC	1000PF	K		
C244			CE04KW1V100M	ELECTRO	10UF	35WV		
C245,246			CC45FSL1H470J	CERAMIC	47PF	J		
C247,248			CC45FSL1H101J	CERAMIC	100PF	J		
C249,250			CC45FSL1H221J	CERAMIC	220PF	J		
C251			CC45FSL1H390J	CERAMIC	39PF	J		
C252			CC45FSL1H150J	CERAMIC	15PF	J	TE	
C252			CC45FSL1H180J	CERAMIC	18PF	J	MYP	
C253			CC45FSL1H220J	CERAMIC	22PF	J		
C254			CC45FSL1H390J	CERAMIC	39PF	J		
C255,256			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C257			CE04KW1V100M	ELECTRO	10UF	35WV		
C258-260			CE04KW1A470M	ELECTRO	47UF	10WV		
C261			CE04KW1V4R7M	ELECTRO	4.7UF	35WV		
C262			CE04KW1V100M	ELECTRO	10UF	35WV		
C263			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C264,265			CE04KW1V100M	ELECTRO	10UF	35WV		
C266			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C267			CE04KW1V100M	ELECTRO	10UF	35WV		
C268			CC45FSL1H470J	CERAMIC	47PF	J		
C269			CK45FB1H471K	CERAMIC	470PF	K		
C270			CE04KW1HR47M	ELECTRO	0.47UF	50WV		
C271			CE04KW1H010M	ELECTRO	1.0UF	50WV		
C272			CK45FB1H561K	CERAMIC	560PF	K		
C273			CE04KW1V100M	ELECTRO	10UF	35WV		
C274			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C275			CC45FSL1H221J	CERAMIC	220PF	J		
C276			CF92FV1H122J	MF	1200PF	J	TE	
C276			CF92FV1H332J	MF	3300PF	J	MYP	
C277			CE04KW1H2R2M	ELECTRO	2.2UF	50WV	MYP	
C277			CE04KW1V010M	ELECTRO	1.0UF	35WV	TE	
C278			CF92FV1H223J	MF	0.022UF	J	MYP	
C278			CF92FV1H473J	MF	0.047UF	J	TE	
C280,281			CC45FSL1H470J	CERAMIC	47PF	J		
C282-285			CE04KW1V100M	ELECTRO	10UF	35WV		
C286-288			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C289			CE04KW1A470M	ELECTRO	47UF	10WV		
C290			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C291			CE04KW1V100M	ELECTRO	10UF	35WV		
C292			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C293			CE04KW1A470M	ELECTRO	47UF	10WV		
C294-296			CE04KW1V100M	ELECTRO	10UF	35WV		
C298			CE04KW1A470M	ELECTRO	47UF	10WV		
C299			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C300-307			CK45FB1H102K	CERAMIC	1000PF	K		
C308			CE04KW1A470M	ELECTRO	47UF	10WV		
C309,310			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C311			CC45FSL1H330J	CERAMIC	33PF	J		
C312,313			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C314			CC45FSL1H220J	CERAMIC	22PF	J		

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No.14

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
J1 -4			E13-0827-05	PHONO JACK(8P) AUDIO		
J5 ,6			E13-1402-05	PHONO JACK(4P) VIDEO		
J7 ,8			E06-0408-05	CYLINDRICAL RECEPTACLE S-VIDEO		
J9			E06-0409-05	CYLINDRICAL RECEPTACLE VDP		
J10			E13-0192-05	PHONO JACK(1P) MONITER OUT		
L25			L40-2201-17	SMALL FIXED INDUCTOR(22UH,K)		
X1			L77-1182-05	CRYSTAL RESONATOR 14.318180MHz	MYP	
X1		*	L77-2107-05	CRYSTAL RESONATOR 17.734475MHz	TE	
X2			L78-0272-05	RESONATOR 503.5kHz	MYP	
X2		*	L78-0300-05	RESONATOR 15.680kHz	TE	
R201,202			RD14GB2E4R7JTS	FL-PROOF RD 4.7 J 1/4W		
D51 -57			HSS104	DIODE		
D51 -57			1SS133	DIODE		
D61 -67			HSS104	DIODE		
D61 -67			1SS133	DIODE		
D100-125			HSS104	DIODE		
D100-125			1SS133	DIODE		
D128,129			HSS104	DIODE		
D128,129			1SS133	DIODE		
D138-140			HSS104	DIODE		
D138-140			1SS133	DIODE		
D141,142			HZS5.1N(B)	ZENER DIODE		
D141,142			RD5.1ES(B)	ZENER DIODE		
D143-148			HSS104	DIODE		
D143-148			1SS133	DIODE		
D149			HZS5.1N(B)	ZENER DIODE		
D149			RD5.1ES(B)	ZENER DIODE		
D150-166			HSS104	DIODE		
D150-166			1SS133	DIODE		
IC1			UPC4570C-A	IC(OP AMP X2)		
IC2			LC7821N	IC(FUNCTION CONTROL SWITCH)		
IC3 -6			NJM4560D-A	IC(OP AMPX2)		
IC3 -6			NJM4565D-D	IC(OP AMP X2)		
IC7			LC7821N	IC(FUNCTION CONTROL SWITCH)		
IC8			LC7822N	IC(FUNCTION CONTROL SWITCH)		
IC20		*	LC7823N	IC(FUNCTION CONTROL SWITCH)		
IC21			MC14577A	IC(DUAL VIDEO AMP)		
IC22		*	LC7823N	IC(FUNCTION CONTROL SWITCH)		
IC23 24			MC14577A	IC(DUAL VIDEO AMP)		
IC25			TC4051BP	IC(8CH MPX/ DE-MPX)		
IC26			MC14577A	IC(DUAL VIDEO AMP)		
IC27			TC4051BP	IC(8CH MPX/ DE-MPX)		
IC28			MC14577A	IC(DUAL VIDEO AMP)		
IC29		*	MM1067XD	IC(SYNC SEPARATION)		
IC30			MC14577A	IC(DUAL VIDEO AMP)		
IC31		*	UPD6450CX-514	IC		
Q1 -4			2SC2878(B)	TRANSISTOR		
Q11			DTC124ES	DIGITAL TRANSISTOR		
Q11			UN4212	TRANSISTOR		
Q12			DTA124ES	DIGITAL TRANSISTOR		
Q12			UN4112	TRANSISTOR		
Q50 -53			DTA124ES	DIGITAL TRANSISTOR		
Q50 -53			UN4112	TRANSISTOR		
Q54 -57			2SC2878(B)	TRANSISTOR		

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No.15

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
Q58 -63			2SC2458(Y,GR)	TRANSISTOR		
Q58 -63			2SC3311A(Q,R)	TRANSISTOR		
Q64 ,65			2SC2878(B)	TRANSISTOR		
Q66			DTA124ES	DIGITAL TRANSISTOR		
Q66			UN4112	TRANSISTOR		
MAIN AMPLIFIER UNIT (X85-1190-06)						
C1 ,2			CE04KW1H220M	ELECTRO 22UF 50WV		
C3 -6			CC45FSL1H101J	CERAMIC 100PF J		
C13 -16			CC45FSL1H470J	CERAMIC 47PF J		
C17 ,18			CC45FSL1H221J	CERAMIC 220PF J		
C19 ,20			CC45FSL1H070D	CERAMIC 7.0PF D		
C21			CE04KW1J470M	ELECTRO 47UF 63WV		
C22			CE04DW1J101M	ELECTRO 100UF 63WV		
C24			CE04KW1E330M	ELECTRO 33UF 25WV		
C25 ,26			CC45FSL1H101J	CERAMIC 100PF J		
C31			CE04KW1H220M	ELECTRO 22UF 50WV		
C32 ,33			CC45FSL1H101J	CERAMIC 100PF J		
C35			CC45FSL1H470J	CERAMIC 47PF J		
C36			CC45FSL1H221J	CERAMIC 220PF J		
C37			CC45FSL1H020C	CERAMIC 2.0PF C		
C38			CC45FSL1H470J	CERAMIC 47PF J		
C51 ,52			CE04KW1J100M	ELECTRO 10UF 63WV		
R19 ,20			RD14NB2E151J	RD 150 J 1/4W		
R27 -30			RD14NB2E221J	RD 220 J 1/4W		
R31 ,32			RD14NB2E470J	RD 47 J 1/4W		
R47			RD14NB2E151J	RD 150 J 1/4W		
R51 ,52			RD14NB2E221J	RD 220 J 1/4W		
D1 ,2			HSS104	DIODE		
D1 ,2			1SS133	DIODE		
D6			HSS104	DIODE		
D6			1SS133	DIODE		
Q1 -4			2SA992(F,E)	TRANSISTOR		
Q11 -14			2SC2631(R,S)	TRANSISTOR		
Q15 ,16			2SA1123(R,S)	TRANSISTOR		
Q17			2SC1740S(Q,R)	TRANSISTOR		
Q17			2SC3311A(Q,R)	TRANSISTOR		
Q21 ,22			2SA992(F,E)	TRANSISTOR		
Q23 ,24			2SC2631(R,S)	TRANSISTOR		
Q25			2SA1123(R,S)	TRANSISTOR		

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⚠ indicates safety critical components.

SPECIFICATIONS

(For other countries)

AUDIO section

STEREO MODE

Continuous rated power output (FTC)

75 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.08 % total harmonic distortion.

[SURROUND MODE]

Continuous rated power output
- **Front (1kHz, 0.2 % T.H.D. at 8Ω). 65 W + 65 W**
- **Center (1kHz, 0.2 % T.H.D. at 8Ω). 65 W**
- **Rear (1kHz, 0.2 % T.H.D. at 8Ω). 25 W + 25 W**

Total harmonic distortion
0.08 % (20 Hz – 20 kHz, 80 W, 8Ω)
0.02 % (1 kHz, 80 W, 8Ω)

Frequency response
LINE (CD, TUNER, AUX, TAPE)
..... 5 Hz – 100 kHz, +0 dB, −3dB

PHONO 'RIAA' response ..... 20 Hz – 20 kHz, +0 dB, −0.3 dB

Maximum input level
PHONO (MM)..... 110 mV, 0.08 % T.H.D. at 1 kHz

Signal to noise ratio
PHONO (MM)..... 78 dB (IHF'66)/79 dB (IHF'78)
LINE (CD, TUNER, AUX, TAPE)
..... 100 dB(IHF'66)/84 dB (IHF'78)

Input sensitivity/Impedance
PHONO (MM)..... 2.5 mV/ 47 kΩ
LINE (CD, TUNER, AUX, TAPE).... 200 mV/47 kΩ

Tone control
BASS ..... ±10 dB (at 100Hz)
TREBLE ..... ±10 dB (at 10kHz)

Output level/Impedance
TAPE REC ..... 200 mV/470 Ω
PREOUT ..... 1 V/600 Ω
Center channel preout ..... 1 V/600 Ω
Rear channel preout ..... 1 V/600 Ω
SUB WOOFER PREOUT ..... 1 V/600 Ω

VIDEO section

Television format ..... NTSC

Input level/Impedance
VIDEO (composite) 1Vp-p/75Ω
Input (VDP, DBS/TV, AV AUX, VIDEO 1, VIDEO 2, VIDEO 3)

S-VIDEO (Luminance signal) 1Vp-p/75Ω
(Chrominance signal) 0.286Vp-p/75Ω
Input (VDP, DBS/TV, AV AUX, VIDEO 1, VIDEO 2)

Output level/Impedance
VIDEO (composite) 1Vp-p/75Ω
Output (VDP, DBS/TV, AV AUX, MONITOR, VIDEO 1, VIDEO 2, VIDEO 3)
S-VIDEO (Luminance signal) 1Vp-p/75Ω
(Chrominance signal) 0.286Vp-p/75Ω
Output (VDP, DBS/TV, AV AUX, MONITOR, VIDEO 1, VIDEO 2)

GENERAL

Power consumption ..... 370 W (IEC)
AC outlet
SWITCHED ..... 200 W max.
Dimensions ..... W: 440 mm (17-5/16")
H : 162 mm (6-3/8")
D : 432 mm (17")
Weight (Net) ..... 16.0 kg (35.3 lb)

Note:
KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

KA-V8500

SPECIFICATIONS

(For the U.S.A. and Canada)

AUDIO section

Continuous rated power output (FTC)

80 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.08 % total harmonic distortion.

[SURROUND MODE]

Continuous rated power output
Front

70 watts per channel minimum RMS, both channels driven, at 8 Ω 1 kHz with no more than 0.2 % total harmonic distortion.

Center

70 watts per channel minimum RMS, both channels driven, at 8 Ω 1 kHz with no more than 0.2 % total harmonic distortion.

Rear

30 watts per channel minimum RMS, both channels driven, at 8 Ω 1 kHz with no more than 0.2 % total harmonic distortion.

Total harmonic distortion
0.08 % (20 Hz-20 kHz, 80 W, 8Ω)
0.02 % (1 kHz, 80 W, 8Ω)

Frequency response
LINE (CD, TUNER, AUX)
.....5 Hz – 100 kHz, +0 dB, −3 dB

PHONO 'RIAA' response
.....20 Hz – 20 kHz, +0.3 dB, −0.3 dB

Maximum input level
PHONO (MM)....110 mV, 0.08 % T.H.D. at 1 kHz

Signal to noise ratio
PHONO (MM).....78 dB (IHF'66)/79 dB (IHF'78)
LINE (CD, TUNER, AUX)
..... 100 dB(IHF'66)/84 dB (IHF'78)

Input sensitivity/Impedance
PHONO (MM).....2.5 mV/ 47 kΩ
LINE (CD, TUNER, AUX, TAPE) ...200 mV/47 kΩ

Tone control
BASS ..... ±10 dB (at 100Hz)
TREBLE ..... ±10 dB (at 10kHz)

Output level/Impedance
TAPE REC ..... 200 mV/470 Ω
PREOUT ..... 1 V/600 Ω
Center channel preout ..... 1 V/600 Ω
Rear channel preout ..... 1 V/600 Ω
SUB WOOFER PREOUT ..... 1 V/600 Ω

VIDEO section

Television format ..... NTSC

Input level/Impedance

VIDEO (composite) 1Vp-p/75Ω
Input (VDP, DBS/TV, AV AUX, VIDEO 1 VIDEO 2, VIDEO 3)

S-VIDEO (Luminance signal) 1Vp-p/75Ω
(Chrominance signal) 0.286Vp-p/75Ω
Input (VDP, DBS/TV, AV AUX, VIDEO 1, VIDEO 2)

Output level/Impedance
VIDEO (composite) 1Vp-p/75Ω
Output (VDP, DBS/TV, AV AUX, MONITOR, VIDEO 1, VIDEO 2, VIDEO 3)
S-VIDEO (Luminance signal) 1Vp-p/75Ω
(Chrominance signal) 0.286Vp-p/75Ω
Output (VDP, DBS/TV, AV AUX, MONITOR, VIDEO 1, VIDEO 2)

GENERAL

Power consumption ..... 4.2 A (For U.S.A. and Canada)
AC outlets
SWITCHED ..... 3: (For the U.S.A.: Total 200 W max.)
(For Canada: Total 200 W, 1.7A max.)
Dimensions ..... W: 440 mm (17-5/16")
H : 162 mm (6-3/8")
D : 432 mm (17")
Weight (Net) ..... 16.0 kg (35.3 lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

SPECIFICATIONS

Specifications (For U.K. and Europe)

AUDIO section

Continuous rated power output (FTC)

55 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20,000 Hz with no more than 0.08 % total harmonic distortion.

(DIN) 1kHz, at 8 Ω ..... 55 W + 55W
at 4 Ω ..... 85 W + 85W

(IEC/NF) From 63Hz to 12,500Hz,
0.7 % T.H.D. at 8 Ω ..... 55 W + 55W
at 4 Ω ..... 80 W + 80W

[SURROUND MODE]

Continuous rated power output (IHF'66)
Front (1kHz, 0.2 % T.H.D. at 8Ω). 45 W + 45 W
Center (1kHz, 0.2 % T.H.D. at 8Ω). 45 W
Rear (1kHz, 0.2 % T.H.D. at 8Ω). 28 W + 28 W

Total harmonic distortion
0.08 % (20 Hz – 20 kHz, 55 W, 8Ω)
0.04 % (1 kHz, 55 W, 8Ω)

Frequency response
LINE (CD, TUNER, AUX, TAPE)
..... 100 Hz – 100 kHz, +0 dB, −3dB

PHONO 'RIAA' response ..... 20 Hz – 20 kHz, +0.3 dB, −0.3 dB

Maximum input level
PHONO (MM)..... 110 mV, 0.08 % T.H.D. at 1 kHz

Signal to noise ratio
PHONO (MM)..... 78 dB (IHF'66)/79 dB (IHF'78)
LINE (CD, TUNER, AUX, TAPE)
..... 100 dB (IHF'66)/84 dB (IHF'78)
PHONO (MM)..... 59 dB (DIN, 50 mW output)
LINE (CD, TUNER, AUX, TAPE)
..... 61 dB (DIN, 50 mW output)

Input sensitivity/Impedance
PHONO (MM)..... 2.5 mV/ 47 kΩ
LINE (CD, TUNER, AUX, TAPE).... 200 mV/47 kΩ

Tone control
BASS ..... ±10 dB (at 100Hz)
TREBLE ..... ±10 dB (at 10kHz)

Output level/Impedance
TAPE REC ..... 200 mV/470 Ω
PREOUT ..... 1 V/600 Ω
Center channel preout ..... 1 V/600 Ω
Rear channel preout ..... 1 V/600 Ω
SUB WOOFER PREOUT ..... 1 V/600 Ω

VIDEO section

Television format ..... PALL

Input level/Impedance
VIDEO (composite) 1Vp-p/75Ω
Input (VDP, DBS/TV, AV AUX, VIDEO 1 VIDEO 2, VIDEO 3)

S-VIDEO (Luminance signal) 1Vp-p/75Ω
(Chrominance signal) 0.286Vp-p/75Ω
Input (VDP, DBS/TV, AV AUX, VIDEO 1, VIDEO 2)

Output level/Impedance
VIDEO (composite) 1Vp-p/75Ω
Output (VDP, DBS/TV, AV AUX, MONITOR, VIDEO 1, VIDEO 2, VIDEO 3)
S-VIDEO (Luminance signal) 1Vp-p/75Ω
(Chrominance signal) 0.286Vp-p/75Ω
Output (VDP, DBS/TV, AV AUX, MONITOR, VIDEO 1, VIDEO 2)

GENERAL

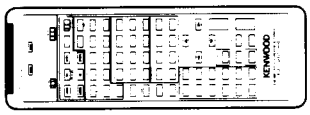
Power consumption ..... 370 W (IEC)
AC outlet
SWITCHED ..... 200 W max.
Dimensions ..... W: 440 mm (17-5/16")
H : 162 mm (6-3/8")
D : 432 mm (17")
Weight (Net) ..... 16.0 kg (35.3 lb)

Note:
KENWOOD follows a policy of continous advancements in development. For this reason specifications may be changed without notice.

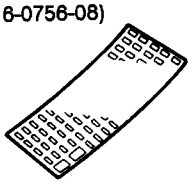
KA-V8500

Accessories

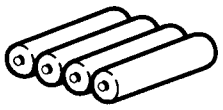
- Remote control unit ... 1
  (A70-0570-05)
  (A09-0086-08):Battery cover



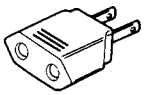
- Remote control unit entry sheet ... 1
  (G16-0756-08)



- Batteries
  (R03/UM-4/"AAA") ... 4



- AC plug adaptor ... 1
  (Except for some areas.)
  For the unit with a European AC plug in areas other than Europe.
  (E03-0115-05)



Instruction manual
B60-0649-00 English
B60-0651-00 DUT,ITA E
B60-0658-00 GER,FRA E,P
B60-0659-00 SPA,CHI M

Item carton case
H50-0186-04

Polysteren formed fixtune
H10-5226-02 L
H10-5227-02 R

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